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WEATHER BUREAU F. W. Reichelderfer, *Chief*

MONTHLY WEATHER REVIEW

NOVEMBER 1945

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CORRECTIONS

Monthly Weather Review, October 1945, vol.
73, page 373. Data should read:

	Alt. (m.)	Obs.	Dr.	Wind
San Antonio, Tex.....	4,000	15	281	5.8
San Antonio, Tex.....	4,000	15	273	2.2

MONTHLY WEATHER REVIEW

Acting Editor, Robert N. Culnan

Vol. 73, No. 11
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NOVEMBER 1945

CLOSED JANUARY 5, 1946
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METEOROLOGICAL AND CLIMATOLOGICAL DATA FOR NOVEMBER 1945

AEROLOGICAL OBSERVATIONS

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during November 1945

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Albany, N. Y. (93 m.)				Albuquerque, N. Mex. (1,620 m.)				Apalachicola, Fla. (5 m.)				Atlanta, Ga. (300 m.)				Big Spring, Tex. (774 m.)				Bismarck, N. Dak. (505 m.)				Boise, Idaho (868 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface.....	30	1,006	4.1	79	30	838	8.5	25	30	1,019	15.7	81	30	985	10.5	78	30	927	12.4	47	30	953	-4.3	80	29	916	4.1	76
500.....	30	956	2.5	79	30	800	8.6	25	30	962	15.3	65	30	962	11.8	70	30	905	14.4	40	30	895	-2.0	70	29	861	5.0	68
1,000.....	30	899	0.5	79	30	754	8.3	27	30	906	12.2	60	30	906	9.1	64	30	851	13.6	34	30	840	-1.4	57	29	847	3.1	61
1,500.....	30	844	-0.7	72	30	708	8.5	28	30	852	9.9	48	30	802	5.1	30	30	801	11.2	28	30	789	-3.1	51	29	796	-0.2	63
2,000.....	30	793	-2.3	67	30	662	8.5	29	30	802	5.1	38	30	754	3.1	47	30	755	8.1	26	30	741	-5.7	50	29	748	-3.5	68
2,500.....	30	745	-4.2	62	30	616	8.3	29	30	756	6.9	38	30	709	1.2	40	30	710	5.2	23	30	694	-8.4	51	29	702	-6.7	75
3,000.....	30	699	-6.8	61	30	570	8.3	30	30	711	5.1	38	30	626	-3.3	30	30	627	-1.0	18	30	610	-14.8	57	29	617	-12.6	78
4,000.....	30	614	-11.3	60	30	482	-10.6	33	30	626	-3.3	30	30	550	-9.3	30	30	552	-7.5	18	30	533	-21.6	57	29	540	-18.6	71
5,000.....	30	538	-16.9	58	30	409	-17.1	33	30	554	-6.3	28	30	483	-16.1	28	30	485	-14.7	18	30	465	-28.9	57	29	472	-25.1	61
6,000.....	30	470	-23.3	58	30	355	-24.6	33	30	487	-13.2	28	30	422	-23.4	26	30	424	-21.9	18	30	403	-36.1	57	29	410	-32.1	61
7,000.....	30	409	-30.3	58	30	297	-32.6	33	30	426	-20.4	26	30	368	-30.9	26	30	370	-29.7	18	30	348	-43.0	57	29	355	-39.1	61
8,000.....	28	355	-37.4	58	30	242	-34.8	33	30	372	-27.7	26	30	318	-38.4	25	30	321	-37.1	18	30	299	-49.0	57	29	306	-46.2	61
9,000.....	28	306	-44.5	58	30	187	-47.8	33	30	323	-35.2	26	30	276	-45.2	25	30	277	-44.6	18	30	257	-53.9	57	29	263	-52.3	61
10,000.....	28	263	-51.1	58	30	132	-50.8	33	30	279	-42.7	26	30	237	-52.0	25	30	238	-52.2	18	30	219	-56.5	57	29	226	-57.0	61
11,000.....	28	225	-55.8	58	30	87	-55.0	33	30	240	-50.3	26	30	203	-58.3	23	30	204	-58.6	18	30	186	-60.7	57	29	191	-58.0	61
12,000.....	22	192	-56.8	58	30	42	-59.8	33	30	205	-56.9	26	30	174	-62.0	22	30	173	-62.7	18	30	159	-64.4	57	29	165	-64.6	61
13,000.....	19	164	-57.9	58	30	172	-62.7	33	30	173	-61.6	22	30	147	-64.9	17	30	146	-65.2	18	30	135	-67.0	57	29	141	-67.0	61
14,000.....	13	139	-57.7	58	30	147	-65.3	33	30	149	-65.3	17	30	124	-65.0	13	30	123	-66.3	18	30	115	-68.0	57	29	119	-68.0	61
15,000.....	9	119	-57.2	58	30	107	-69.9	33	30	127	-67.6	12	30	98	-68.0	9	30	98	-68.0	18	30	98	-68.0	57	29	98	-68.0	61
16,000.....	5	104	-64.3	58	30	82	-72.0	33	30	107	-69.9	5	30	82	-72.0	18	30	82	-72.0	18	30	82	-72.0	57	29	82	-72.0	61

Altitude (meters) m. s. l.	Brownsville, Tex. (6 m.)				Buffalo, N. Y. (221 m.)				Burrwood, La. (2 m.)				Caribou, Maine (191 m.)				Charleston, S. C. (14 m.)				Clovis, N. Mex. (1,306 m.)				Denver, Colo. (1,616 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface.....	30	1,016	21.2	82	30	989	4.8	75	24	1,019	19.2	75	30	993	-1.7	90	28	1,018	12.4	84	30	868	7.3	40	30	835	3.7	47
500.....	30	960	19.6	77	30	956	4.1	73	24	962	16.3	70	30	956	-2.1	83	28	961	13.8	86	30	868	7.3	40	30	835	3.7	47
1,000.....	30	905	16.5	73	30	899	1.8	74	24	906	12.9	64	30	897	-3.4	80	28	906	11.0	85	30	868	7.3	40	30	835	3.7	47
1,500.....	30	854	14.8	57	30	844	0.0	69	24	854	10.9	55	30	842	-4.4	68	28	853	8.1	64	30	848	10.9	36	30	808	5.9	34
2,000.....	30	804	13.7	45	30	793	-1.9	64	24	804	9.4	38	30	790	-5.4	60	28	802	5.0	58	30	796	9.6	27	30	749	2.4	35
2,500.....	30	758	11.6	37	30	745	-4.0	58	24	757	8.3	30	30	741	-6.9	57	28	755	4.1	51	30	752	6.8	24	30	704	2.4	35
3,000.....	30	714	8.7	31	30	698	-6.7	57	24	712	6.2	22	30	695	-8.8	54	28	709	2.0	41	30	707	3.7	24	30	704	-1.5	38
4,000.....	30	632	2.4	30	613	-12.0	52	24	630	0.6	18	30	610	-13.5	55	28	626	-2.3	30	30	624	2.7	25	30	620	-8.9	47	
5,000.....	30	557	-4.2	30	538	-18.3	57	23	555	-8.8	18	30	534	-19.2	56	26	551	-8.2	22	30	549	-8.9	20	30	544	-15.4	46	
6,000.....	30	490	-11.1	29	470	-24.2	52	22	488	-12.8	18	30	466	-25.6	56	26	484	-14.8	22	30	482	-16.3	20	30	476	-22.7	47	
7,000.....	30	430	-18.3	27	408	-31.5	52	22	427	-20.3	18	30	406	-32.2	56	25	423	-22.9	22	30	421	-24.2	20	30	414	-30.4	47	
8,000.....	29	375	-25.5	26	353	-38.1	52	22	373	-28.1	18	30	352	-39.3	56	25	368	-30.6	22	30	366	-31.7	22	30	359	-38.0	47	
9,000.....	29	326	-33.2	18	301	-46.5	52	22	323	-36.1	18	30	303	-46.1	56	24	319	-38.2	22	30	317	-39.3	20	30	310	-45.1	47	
10,000.....	29	282	-40.7	12	258	-52.6	52	22	279	-44.0	18	30	261	-52.1	56	23	275	-45.5	22	30	273	-47.0	20	30	266	-51.5	47	
11,000.....	29	243	-48.3	9	218	-55.1	52	20	240	-51.5	18	30	223	-57.2	56	21	236	-52.3	22	30	235	-53.8	20	30	228	-55.6	47	
12,000.....	29	208	-55.5	8	186	-56.2	52	20	206	-58.0	18	30	190	-58.4	56	18	203	-57.5	22	30	200	-59.3	18	30	194	-58.0	47	
13,000.....	27	177	-62.0	6	160	-55.9	52	20	175	-63.2	18	30	161	-56.7	56	10	174	-61.8	22	30	170	-62.3	18	30	163	-57.9	47	
14,000.....	21	150	-66.5	6	140	-66.2	52	17	148	-66.2	18	30	139	-57.0	56	8	148	-65.2	22	30	145	-63.9	14	30	141	-67.0	47	
15,000.....	14	127	-69.4	6	125	-67.4	52	6	125	-67.4	18	30	125	-67.0	56	6	125	-67.0	22	30	122	-64.6	8	30	122	-64.6	47	

Altitude (meters) m. s. l.	Dodge City, Kans. (787 m.)				El Paso, Tex. (1,195 m.)				Ely, Nev. (1,908 m.)				Fort Worth, Tex. (211 m.)				Glasgow, Mont. (648 m.)				Grand Junction, Colo. (1,414 m.)				Great Falls, Mont. (1,128 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface.....	30	923	6.8	48	30	882	12.7	29	30	800	0.0	67	29	992	14.7	58	20	936	-5.8	81	30	850	3.7	40	30	882	1.0	58
500.....	30	900	10.2	41	30	851	15.3	24	30	752	0.2	50	29	959	15.8	52	20	904	-4.5	76	30	850	4.7	40	30	842	0.6	55
1,000.....	30	847	9.0	34	30	802	12.0	24	30	606	1.5	60	29	904	13.7	41	20	839	-4.8	66	30	850	4.7	40	30	842	0.6	55
1,500.....	30	797	6.4	32	30	755	9.0	23	30	506	0.2	50	29	802	9.3	34	20	787	-6.4	62	30	850	4.7	40	30	842	0.6	55
2,000.....	30	750	3.1	34	30	711	5.9	24	30	406	-3.0	53	29	755	6.5	30	20	739	-9.2	68	30	850	4.7	40	30	842	0.6	55
2,500.....	30	704	-0.2																									

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during November 1945—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	Green Bay, Wis. (182 m.)				Greensboro, N. C. (273 m.)				Hatteras, N. C. (3 m.)				Havana, Cuba. ¹ (51 m.)				Huntington, W. Va. (172 m.)				International Falls, Minn. (343 m.)				Joliet, Ill. (178 m.)			
	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity				
Surface	26	992	1.0	77	30	986	7.7	75	21	1,020	15.4	79					30	998	7.2	81	30	971	-4.3	87	30	994	3.4	78
500	26	954	-0.2	75	30	960	9.7	66	21	962	13.7	70					30	959	8.0	69	30	952	-5.2	88	30	955	2.3	74
1,000	26	896	-2.2	76	30	903	7.5	65	21	906	10.5	68					30	902	5.8	67	30	893	-7.1	88	30	897	1.4	64
1,500	26	841	-2.8	66	30	850	4.6	65	21	853	7.8	58					30	848	3.4	68	30	838	-6.3	73	30	843	0.6	54
2,000	26	790	-4.2	56	30	799	2.3	60	21	802	5.5	54					30	797	1.0	62	30	786	-6.4	64	30	792	-1.1	44
2,500	26	741	-6.1	47	30	751	0.1	54	21	755	3.0	51					30	749	-1.4	63	30	737	-8.1	65	30	744	-3.1	42
3,000	26	694	-8.6	45	30	706	-2.2	49	20	709	0.4	41					30	703	-3.9	58	30	690	-10.6	66	29	698	-5.8	44
4,000	25	610	-13.8		30	622	-6.9	42	20	625	-3.9						30	619	-9.2	53	30	606	-16.3	66	29	614	-11.3	54
5,000	25	534	-20.5		30	546	-13.4	43	20	550	-10.1						29	543	-15.1	48	30	530	-22.9	64	28	538	-17.4	56
6,000	24	466	-27.2		30	478	-20.2	41	20	482	-16.8						28	474	-22.1		30	461	-29.4	64	28	470	-24.2	
7,000	23	404	-34.5		30	417	-25.9		19	421	-24.6						28	413	-28.6		30	400	-36.2	64	28	409	-31.0	
8,000	23	349	-41.4		30	362	-34.6		18	366	-31.6						27	359	-35.2		30	345	-43.3	64	28	353	-38.1	
9,000	22	301	-47.5		30	312	-41.9		16	317	-39.3						27	310	-41.6		30	297	-49.6	64	27	305	-43.8	
10,000	20	257	-53.4		30	260	-48.4		12	273	-46.6						27	267	-47.7		30	254	-54.2	64	26	262	-49.8	
11,000	18	220	-55.3		29	231	-54.4		9	233	-52.4						25	229	-53.3		29	218	-55.5	64	23	225	-53.4	
12,000	16	187	-55.5		28	198	-59.1		7	197	-57.3						25	195	-57.1		24	186	-55.2	64	18	192	-54.9	
13,000	16	160	-55.9		21	168	-62.0		6	168	-59.0						19	167	-59.4		16	158	-53.6	64	17	164	-56.5	
14,000	12	137	-56.2		13	142	-62.9		5	145	-62.1						15	142	-59.6		10	135	-54.1	64	13	140	-56.8	
15,000									5	123	-64.0						13	120	-59.1		6	116	-53.0	64	6	120	-58.2	
16,000																	8	102	-60.4									

Altitude (meters) m. s. l.	Lake Charles, La. (5 m.)				Lander, Wyo. (1,632 m.)				Las Vegas, Nev. (574 m.)				Little Rock, Ark. (79 m.)				Louisville, Ky. (165 m.)				Mazatlan, Mexico (80 m.)				Medford, Oreg. (409 m.)			
	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity				
Surface	29	1,019	15.7	86	30	833	-2.3	70	30	950	11.3	29	30	1,008	12.1	73	30	998	8.3	71	30	1,004	24.4	77	30	968	7.7	84
500	29	961	16.3	66					30	903	13.6	26	30	959	12.3	62	30	958	7.6	66	30	958	24.8	52	30	958	7.6	82
1,000	29	906	13.6	55					30	850	10.3	28	30	904	10.1	64	30	902	5.3	67	30	904	22.9	49	30	901	5.6	78
1,500	29	854	11.5	52					30	801	7.0	30	30	850	8.0	58	30	848	3.4	60	30	854	20.1	44	30	847	2.7	79
2,000	29	804	10.0	44	30	795	0.5	49	30	754	3.7	31	30	800	6.5	51	30	797	1.6	54	30	804	17.0	40	30	796	-0.4	82
2,500	29	757	8.5	37	30	747	-1.7	46	30	708	0.9	29	30	753	4.2	46	30	749	-0.7	56	30	759	13.4	40	30	748	-3.2	81
3,000	29	712	6.2	34	30	702	-5.1	50	30	654	-1.5	44	30	708	1.5	44	30	703	-3.3	50	30	715	9.7	42	30	702	-5.8	72
4,000	29	630	0.8		30	617	-11.6	55	30	624	-5.0	28	30	624	-3.8	31	30	619	-8.7	45	30	633	3.0	38	30	617	-11.3	67
5,000	29	555	-5.5		30	540	-18.3	57	30	549	-11.4	33	30	549	-10.2	32	30	543	-14.2		29	559	-3.5	32	29	541	-16.7	62
6,000	29	488	-12.4		30	472	-25.7		29	481	-18.5	36	30	482	-16.6		30	475	-20.5		29	491	-10.5		29	473	-23.2	
7,000	29	427	-19.8		29	410	-33.1		29	420	-25.9		30	421	-23.8		30	415	-27.4		29	431	-17.1		29	412	-30.5	
8,000	28	373	-27.2		29	354	-40.8		28	365	-33.5		30	366	-31.2		29	360	-34.3		29	376	-24.7		29	357	-37.8	
9,000	27	324	-34.7		27	306	-47.4		28	316	-41.0		30	317	-38.8		28	311	-41.1		28	327	-32.6		25	308	-44.9	
10,000	26	280	-41.8		27	263	-53.1		28	272	-48.4		29	274	-46.0		27	268	-47.4		28	283	-40.5		25	265	-51.6	
11,000	25	241	-49.1		27	225	-57.5		27	233	-54.4		29	235	-53.2		26	231	-53.3		28	244	-48.1		24	227	-56.7	
12,000	23	206	-55.7		19	192	-57.6		25	199	-58.3		25	201	-58.0		22	197	-57.9		27	209	-56.0		16	194	-59.2	
13,000	22	176	-60.8		13	163	-58.4		20	169	-61.3		19	172	-61.3		17	168	-59.5		24	178	-63.2		12	166	-59.8	
14,000	15	150	-64.7		7	138	-66.0		15	145	-62.0		14	146	-63.3		8	142	-58.6		16	151	-68.6		6	142	-60.8	
15,000	10	127	-67.1						10	123	-63.6		9	124	-63.1		5	120	-58.5		10	127	-73.0					
16,000	7	108	-69.1						5	105	-64.6		7	106	-65.3													

Altitude (meters) m. s. l.	Merida, Mexico (27 m.)				Miami, Fla. (4 m.)				Nashville, Tenn. (180 m.)				North Platte, Nebr. (849 m.)				Oakland, Calif. (2 m.)				Ogden, Utah (1,355 m.)				Oklahoma City, Okla. (391 m.)			
	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity	Number of obser- vations	Pressure	Temperature	Relative humidity				
Surface	24	1,012	23.6	74	30	1,017	19.9	83	30	997	10.1	71	30	915	2.3	66	30	1,019	13.1	79	30	865	2.2	72	29	970	10.0	54
500	24	958	20.8	70	30	960	18.5	76	30	960	9.5	68	30	960	10.8	74	30	960	10.8	74	—	—	—	—	29	958	11.7	48
1,000	24	905	18.1	69	30	906	15.1	75	30	903	7.0	68	30	908	4.5	59	30	904	8.6	64	—	—	—	—	29	902	11.4	38
1,500	24	853	14.8	68	30	854	12.5	68	30	849	5.2	58	30	845	5.3	48	30	851	6.4	53	30	850	3.4	64	29	849	9.5	38
2,000	24	804	12.5	53	30	804	10.7	59	30	799	3.1	55	30	794	2.8	46	30	800	3.7	50	30	799	1.3	59	29	799	7.0	32
2,500	24	757	10.6	40	30	757	9.1	42	30	752	1.1	48	30	746	0.4	47	30	753	1.0	51	30	750	-2.1	64	29	752	4.2	30
3,000	24	713	8.7		30	712	7.3	31	30	705	-1.5	47	30	7														

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during November 1945—Continued

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL—Continued

Altitude (meters) m. s. l.	Omaha, Nebr. (308 m.)				Phoenix, Ariz. (339 m.)				Pittsburgh, Pa. (382 m.)				Portland, Maine (20 m.)				Rapid City, S. Dak. (981 m.)				St. Louis, Mo. (171 m.)				St. Paul, Minn. (225 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity				
Surface	27	978	4.5	63	30	975	12.0	51	29	971	5.6	76	30	1,015	2.9	82	30	900	0.4	63	30	996	7.3	70	30	986	0.4	75
500	27	955	4.3	62	30	957	18.8	29	29	958	5.5	74	30	957	2.8	79	30	897	0.8	62	30	958	6.1	69	30	963	-1.2	79
1,000	27	898	4.4	54	30	903	16.4	26	29	901	3.9	70	30	899	0.9	69	30	900	4.9	65	30	900	4.9	65	30	895	-2.1	75
1,500	27	845	3.2	53	30	851	12.9	27	29	847	1.6	67	30	845	-0.1	60	30	844	2.3	62	30	847	3.8	58	30	840	-2.1	75
2,000	27	794	1.3	49	30	801	9.4	26	29	795	-0.6	63	30	793	-1.2	60	30	792	-0.1	53	30	796	2.0	54	30	789	-3.4	61
2,500	27	746	-1.3	42	30	754	6.3	28	29	747	-2.0	58	30	745	-3.2	63	30	745	-2.8	53	30	748	-0.1	52	30	741	-5.6	50
3,000	27	700	-4.2	43	30	709	3.5	27	29	701	-5.1	51	30	699	-5.7	55	30	699	-6.2	53	30	702	-2.9	51	30	694	-8.0	48
4,000	26	616	-10.3	50	30	626	-2.7	22	29	616	-10.3	54	30	615	-10.8	55	30	614	-12.9	61	30	618	-5.7	47	30	610	-14.1	46
5,000	26	540	-16.8	54	29	551	-9.2	27	29	541	-15.1	54	30	539	-17.0	60	30	538	-19.3	57	30	543	-15.1	50	30	534	-20.4	53
6,000	26	472	-24.3	—	29	483	-16.5	—	28	473	-22.9	—	30	471	-23.0	—	30	469	-26.5	—	30	475	-21.9	—	30	466	-27.2	—
7,000	25	411	-31.3	—	29	423	-24.3	—	28	412	-29.7	—	30	410	-29.9	—	30	408	-33.6	—	30	414	-29.3	—	30	404	-34.2	—
8,000	25	356	-38.4	—	29	368	-32.1	—	28	357	-36.5	—	30	355	-37.3	—	29	353	-40.7	—	30	359	-36.2	—	30	350	-41.2	—
9,000	25	307	-45.0	—	28	318	-39.8	—	26	309	-42.8	—	29	307	-44.3	—	29	304	-47.6	—	30	310	-42.7	—	30	301	-47.8	—
10,000	24	264	-49.9	—	28	274	-47.3	—	25	266	-48.6	—	28	264	-50.8	—	29	261	-53.2	—	29	267	-49.8	—	28	259	-53.1	—
11,000	24	227	-54.7	—	26	235	-54.4	—	20	228	-53.3	—	23	226	-56.5	—	22	223	-55.3	—	22	229	-53.7	—	27	221	-55.4	—
12,000	19	194	-57.9	—	24	201	-60.0	—	17	194	-56.1	—	26	193	-58.9	—	18	190	-57.5	—	18	197	-58.3	—	26	186	-56.4	—
13,000	13	165	-57.7	—	19	171	-62.8	—	14	166	-56.4	—	19	164	-59.8	—	12	162	-56.6	—	13	167	-58.8	—	21	161	-55.9	—
14,000	9	143	-59.2	—	10	146	-63.2	—	12	142	-58.0	—	5	138	-57.7	—	7	137	-57.3	—	7	141	-57.6	—	12	137	-54.7	—
15,000	—	—	—	—	—	—	—	—	7	120	-56.1	—	5	118	-59.7	—	5	118	-59.7	—	—	—	—	—	5	118	-53.5	—

Altitude (meters) m. s. l.	San Antonio, Tex. (240 m.)				San Juan, P. R. (15 m.)				Santa Maria, Calif. (71 m.)				Sault Ste. Marie, Mich. (221 m.)				Spokane, Wash. (596 m.)				Swan Island, W. I. (10 m.)				Tacubaya, Mexico (2,306 m.)			
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity
Surface	30	989	16.4	75	30	1,012	23.9	86	30	1,010	11.3	80	30	986	0.4	83	30	942	2.9	85	30	1,012	25.1	82	30	775	13.8	55
500	30	959	17.9	66	30	957	21.3	82	30	960	12.4	65	30	952	-0.8	85	30	958	22.2	82	30	958	22.2	82	—	—	—	—
1,000	30	905	15.4	70	30	903	18.1	80	30	905	10.7	63	30	894	-3.0	86	30	896	0.8	84	30	904	18.8	81	—	—	—	—
1,500	30	853	13.0	60	30	852	14.9	77	30	851	7.9	48	30	840	-4.6	81	30	842	-1.9	82	30	853	15.9	78	—	—	—	—
2,000	30	803	12.1	42	30	803	12.4	70	30	801	5.7	38	30	788	-5.6	68	30	790	-4.7	78	30	804	13.3	74	—	—	—	—
2,500	30	757	9.9	33	30	756	10.3	58	30	754	3.4	35	30	739	-7.5	63	30	742	-7.6	70	30	757	10.7	68	30	757	13.2	56
3,000	30	712	6.9	29	30	712	8.4	46	30	708	0.9	31	30	692	-9.5	57	30	695	-10.7	82	30	713	8.2	61	30	713	10.0	56
4,000	29	630	0.9	28	30	630	3.2	36	30	624	-4.6	30	30	608	-14.8	55	30	610	-16.7	79	30	631	-2.0	40	30	632	2.7	61
5,000	29	553	-5.7	—	30	556	-2.6	40	30	549	-10.9	35	30	532	-20.8	55	28	533	-23.2	—	30	558	-2.4	51	30	558	-2.9	41
6,000	29	488	-12.7	—	30	490	-8.7	37	30	481	-17.8	—	30	464	-27.8	—	28	464	-29.9	—	30	491	-7.9	42	29	491	-8.4	—
7,000	29	426	-20.1	—	30	430	-15.0	41	30	420	-25.3	—	28	403	-35.4	—	28	402	-36.5	—	30	431	-14.2	—	29	431	-15.2	—
8,000	29	373	-27.5	—	29	376	-22.1	—	29	365	-32.7	—	28	348	-42.4	—	27	347	-43.2	—	28	377	-31.0	—	29	377	-32.4	—
9,000	29	323	-35.1	—	29	327	-29.8	—	28	316	-40.2	—	26	300	-48.1	—	25	299	-49.4	—	28	328	-38.1	—	26	328	-39.8	—
10,000	29	280	-42.6	—	29	284	-37.5	—	27	272	-47.7	—	26	258	-53.0	—	24	256	-54.0	—	28	285	-35.9	—	27	285	-37.6	—
11,000	28	241	-50.1	—	29	245	-45.5	—	27	234	-54.6	—	24	221	-55.6	—	18	220	-57.3	—	27	246	-44.0	—	27	245	-45.6	—
12,000	27	206	-56.9	—	29	210	-53.5	—	26	200	-59.5	—	20	189	-57.6	—	13	187	-56.5	—	25	212	-52.0	—	25	211	-53.4	—
13,000	24	175	-62.7	—	27	180	-61.0	—	22	170	-61.9	—	18	161	-56.0	—	10	161	-60.3	—	20	181	-60.8	—	21	180	-60.6	—
14,000	17	149	-66.4	—	23	152	-67.6	—	16	144	-64.3	—	13	138	-67.2	—	6	162	-68.0	—	16	154	-67.2	—	14	153	-67.6	—
15,000	13	126	-68.5	—	10	129	-72.8	—	9	122	-64.4	—	8	118	-67.5	—	—	—	—	—	10	130	-73.4	—	—	—	—	—
16,000	—	—	—	—	—	—	—	—	6	104	-64.6	—	—	—	—	—	7	110	-77.3	—	—	—	—	—	—	—	—	—

Altitude (meters) m. s. l.	Tampa, Fla. (3 m.)			Tatoosh Island, Wash. (31 m.)			Toledo, Ohio (191 m.)			Washington, D. C. (25 m.)						
	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity	Number of observations	Pressure	Temperature	Relative humidity				
Surface	29	1,019	17.9	78	30	1,006	7.0	83	30	993	4.8	78	30	1,015	9.2	72
500	29	961	16.8	68	30	950	4.4	82	30	955	4.2	72	30	959	7.9	68
1,000	29	907	13.9	64	30	893	0.8	85	30	898	1.8	68	30	902	5.7	65
1,500	29	854	11.6	58	30	839	-2.2	86	30	845	0.3	63	30	848	3.4	63
2,000	29	804	9.0	55	30	788	-5.1	80	30	793	-1.3	57	30	797	1.3	60
2,500	29	757	7.2	43	30	739	-7.8	75	30	745	-3.2	52	30	749	-1.0	59
3,000	29	712	5.6	32	30	692	-11.0	73	30	699	-5.8	53	30	704	-3.8	58
4,000	29	630	0.6	—	30	607	-17.0	71	30	614	-11.7	50	30	619	-0.3	56
5,000	29	555	-5.7	—	28	530	-23.4	—	30	538	-17.7	47	30	543	-14.7	48
6,000	29	488	-12.2	—	27	462	-29.5	—	30	471	-24.3	—	29	476	-21.3	—
7,000	29	427	-19.2	—	27	401	-35.7	—	29	410	-30.9	—	29	415	-28.0	—
8,000	28	373	-26.6	—	27	346	-41.8	—	29	355	-37.7	—	29	360	-35.1	—
9,000	28	323	-34													

1 Data not yet received.

NOTE.—All observations scheduled between 10 p. m. and midnight, E. S. T. (0000 and 0000, G. C. T.), except at Mazatlan and Merida, where they are taken near 9 p. m., E. S. T. (0200 G. C. T.)

"Number of observations" refers to pressure only. (In a few cases temperature or humidity data may be missing for one or more levels of some observations.) Relative humidity data are not published for levels having a corresponding mean temperature below -20° C.

All relative humidity observations are obtained by electric hygrometer and have been adjusted to compensate for the values occurring below the operating range of the humidity element. For explanation of the adjustment see article entitled "Curve Method for Obtaining Monthly Means of Relative Humidity," p. 241, MONTHLY WEATHER REVIEW, December 1944.

None of the means included in these tables are based on less than 15 surface or 5 standard level observations.

Raob data for Havana, Cuba, will appear in a later issue.

LATE REPORT FOR SWAN ISLAND, WEST INDIES

TABLE 1.—Mean free-air barometric pressure in millibars, temperature in degrees centigrade, and relative humidity in percent, obtained by radiosondes during October 1945

STATIONS AND ELEVATIONS IN METERS ABOVE SEA LEVEL

Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)				Altitude (meters) m. s. l.	Swan Island, West Indies (10 m.)			
	Number of observations	Pressure	Temperature	Relative humidity		Number of observations	Pressure	Temperature	Relative humidity
Surface.....	28	1,011	25.4	85	7,000.....	26	432	-13.8	52
500.....	28	956	23.0	81	8,000.....	26	378	-20.3	.....
1,000.....	28	903	20.0	78	9,000.....	26	329	-27.6	.....
1,500.....	28	853	17.2	75	10,000.....	25	286	-35.2	.....
2,000.....	28	804	14.5	72	11,000.....	24	247	-43.2	.....
2,500.....	28	757	11.8	68	12,000.....	24	212	-51.5	.....
3,000.....	28	714	9.2	66	13,000.....	22	181	-59.8	.....
4,000.....	28	632	3.6	61	14,000.....	21	154	-67.7	.....
5,000.....	27	558	-2.1	62	15,000.....	13	130	-74.2	.....
6,000.....	27	491	-7.8	57	16,000.....	5	100	-78.0	.....

CORRECTIONS

Data for October 1945, Table 2, page 170, should read:

	Alt. (m.)	Obs.	Dir.	Velocity.
San Antonio, Tex.....	4,000	19	281	5.8
San Antonio, Tex.....	5,000	15	278	8.2

TABLE 2.—Free-air resultant winds based on pilot balloon observations made near 5 p. m., E. S. T. (2200 G. C. T.) during November 1945. Directions given in degrees from north (N=360°, E=90°, S=180°, W=270°). Velocities in meters per second

Altitude (meters) m. s. l.	Abilene, Tex. (534 m.)			Albuquerque, N. Mex. (1,630 m.)			Atlanta, Ga. (299 m.)			Billings, Mont. (1,095 m.)			Bismarck, N. Dak. (512 m.)			Boise, Idaho (868 m.)			Brownsville, Tex. (7 m.)			Buffalo, N. Y. (220 m.)			Burlington, Vt. (100 m.)			Charleston, S. C. (16 m.)			Cincinnati, Ohio (150 m.)			Denver, Colo. (1,627 m.)			El Paso, Tex. (1,198 m.)			
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity				
Surface.....	30	195	2.5	30	264	2.0	27	265	2.1	28	276	2.8	27	306	2.6	29	85	1.5	30	140	4.9	28	241	3.0	26	182	1.1	29	258	0.7	29	238	2.6	30	294	2.8	30	257	2.6	
500.....	30	228	3.9	30	236	5.6	27	267	2.6	28	286	3.0	27	295	4.0	29	123	1.7	30	143	6.5	28	234	5.2	26	208	4.1	29	284	2.1	29	231	4.3	30	257	3.4	30	256	4.7	
1,000.....	29	236	5.6	30	249	8.6	27	274	4.9	28	262	6.9	23	290	6.3	29	208	2.9	26	177	5.1	13	246	9.3	18	262	8.2	27	294	4.3	21	248	10.7	30	263	3.5	30	257	9.3	
1,500.....	29	249	8.6	30	259	3.2	23	278	7.4	27	270	9.2	22	287	9.1	26	251	5.3	21	206	3.2	19	237	1.7	14	268	10.8	27	293	6.1	18	259	11.5	30	286	5.2	30	267	9.3	
2,000.....	27	258	10.8	30	273	5.1	21	285	8.2	26	277	9.5	22	288	10.3	22	254	7.8	19	237	1.7	10	275	14.9	10	279	14.6	26	286	6.6	12	269	13.1	29	275	6.8	30	267	9.3	
2,500.....	26	265	12.7	30	280	8.2	18	290	8.6	24	276	11.3	21	290	11.6	21	257	9.4	17	251	2.0	15	255	5.9	10	279	14.6	26	283	8.2	12	269	13.1	29	275	6.8	30	267	9.3	
3,000.....	25	274	16.3	30	278	14.6	11	298	10.7	20	287	15.0	17	297	12.4	12	261	11.2	16	280	4.7	15	255	5.9	10	279	14.6	26	283	8.2	12	269	13.1	29	275	6.8	30	267	9.3	
4,000.....	25	274	16.3	30	278	14.6	11	298	10.7	20	287	15.0	17	297	12.4	12	261	11.2	16	280	4.7	15	255	5.9	10	279	14.6	26	283	8.2	12	269	13.1	29	275	6.8	30	267	9.3	
5,000.....	25	274	16.3	30	278	14.6	11	298	10.7	20	287	15.0	17	297	12.4	12	261	11.2	16	280	4.7	15	255	5.9	10	279	14.6	26	283	8.2	12	269	13.1	29	275	6.8	30	267	9.3	
6,000.....	22	277	18.4	27	273	20.8	15	287	19.0	13	286	20.9	14	269	8.3	18	276	16.6
8,000.....	16	272	19.9	22	271	23.3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000.....	13	272	26.9	14	270	23.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Altitude (meters) m. s. l.	Ely, Nev. (1,910 m.)			Grand Junction, Colo. (1,413 m.)			Greensboro, N. C. (271 m.)			Havre, Mont. (767 m.)			Jacksonville, Fla. (16 m.)			Joliet, Ill. (178 m.)			Las Vegas, Nev. (573 m.)			Little Rock, Ark. (88 m.)			Medford, Oreg. (416 m.)			Miami, Fla. (12 m.)			Mobile, Ala. (66 m.)			Nashville, Tenn. (194 m.)			New York, N. Y. (15 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity			
Surface.....	29	203	1.4	30	292	2.2	26	245	1.3	28	280	1.8	30	54	1.3	26	222	4.3	30	58	0.6	28	202	2.0	26	215	0.7	30	54	2.5	30	158	0.4	25	238	2.5	25	311	2.6
500.....	29	203	1.4	30	292	2.2	26	245	1.3	28	280	1.8	30	54	1.3	26	222	4.3	30	58	0.6	28	202	2.0	26	215	0.7	30	54	2.5	30	158	0.4	25	238	2.5	25	311	2.6
1,000.....	29	203	1.4	30	292	2.2	26	245	1.3	28	280	1.8	30	54	1.3	26	222	4.3	30	58	0.6	28	202	2.0	26	215	0.7	30	54	2.5	30	158	0.4	25	238	2.5	25	311	2.6
1,500.....	29	203	1.4	30	292	2.2	26	245	1.3	28	280	1.8	30	54	1.3	26	222	4.3	30	58	0.6	28	202	2.0	26	215	0.7	30	54	2.5	30	158	0.4	25	238	2.5	25	311	2.6
2,000.....	29	201	2.1	30	264	3.0	22	264	6.0	25	273	9.5	26	273	4.4	14	270	9.9	29	249	3.4	23	279	9.4	16	234	7.3	26	346	2.8	25	295	3.7	18	247	9.1	16	275	10.3
2,500.....	29	231	4.2	30	242	4.5	21	273	6.7	23	271	10.0	26	284	4.8	13	270	12.4	30	259	4.6	20	281	13.1	13	241	7.0	25	327	2.4	21	308	4.6	18	256	9.5	13	274	1.5
3,000.....	28	246	5.9	29	241	7.0	19	266	6.2	21	276	12.6	26	294	6.2	13	274	14.4	29	270	5.9	18	283	14.7	11	254	6.5	22	298	4.2	18	282	4.4	14	276	10.2	.....	.....
4,000.....	22	268	10.5	26	265	10.0	18	278	8.1	16	275	14.2	22	284	10.0	.....	.....	.....	28	270	9.9	15	301	16.0	.....	.....	.....	16	282	6.1	13	290	7.4	14	281	15.6	.....	.....
5,000.....	19	274	14.8	22	277	15.0	15	275	10.9	.....	.....	.....	20	288	14.4	.....	.....	.....	26	274	12.8	12	311	21.0	.....	.....	.....	15	275	8.3	.....	.....	.....	.....	.....	.....	.....	.....
6,000.....	18	270	18.0	20	282	18.3	15	273	14.7	.....	.....	.....	.....	.....	.....	.....	.....	23	269	14.3	11	304	25.0	.....	.....	.....	15	274	9.7	.....	.....	.....	.....	.....	.....	.....	.....
8,000.....	14	275	23.5	14	286	23.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000.....	11	302	18.2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Altitude (meters) m. s. l.	Oakland, Calif. (8 m.)			Oklahoma City, Okla. (396 m.)			Omaha, Nebr. (306 m.)			Phoenix, Ariz. (338 m.)			Rapid City, S. Dak. (982 m.)			St. Louis, Mo. (181 m.)			St. Paul, Minn. (226 m.)			San Antonio, Tex. (240 m.)			San Diego, Calif. (15 m.)			Sault Ste. Marie, Mich. (225 m.)			Seattle, Wash. (116 m.)			Spokane, Wash. (603 m.)			Washington, D. C. (24 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity	Observations	Direction	Velocity			
Surface.....	28	254	2.5	29	224	2.5	29	268	2.8	30	262	0.9	29	342	3.2	29	219	2.2	26	252	0.9	29	173	2.3	28	284	4.0	23	244	1.2	28	195	3.8	29	201	2.8	26	284	1.6
500.....	28	274	2.6	29	222	2.9	29	264	3.2	30	237	1.1	29	314	5.6	26	218	1.5	29	218	1.5	29	172	2.5	28	292	3.5	23	242	1.0	28	203	6.5	29	210	6.2	26	254	3.1
1,000.....	23	289	2.9	29	226	4.2	27	268	4.7	30	196	1.1	29	314	5.6	26	218	1.5	29	218	1.5	29	172	2.5	28	292	3.5	23	242	1.0	28	203	6.5	29	210	6.2	26	254	3.1
1,500.....	22	289	2.9	29	226	4.2	27	268	4.7	30	196	1.1	29	314	5.6	26	218	1.5	29	218	1.5	29	172	2.5	28	292	3.5	23	242	1.0	28	203	6.5	29	210	6.2	26	254	3.1
2,000.....	18	284	3.8	28	256	9.0	25	275	10.0	30	246	1.0	27	295	7.1	23	283	10.8	14	260	9.8	27	208	4.0	25	20	0.3	14	279	5.4	18	214	12.8	23	224	7.9	20	264	10.4
2,500.....	18	281	5.3	28	264	12.6	25	284	12.6	30	246	1.0	27	295	7.1	23	283	10.8	14	260	9.8	27	208	4.0	25	20	0.3	14	279	5.4	18	214	12.8	23	224	7.9	20	264	10.4
3,000.....	18	279	7.0	27	270	13.8	25	281	13.8	30	246	1.0	27	295	7.1	23	283	10.8	14	260	9.8	27	208	4.0	25	20	0.3	14	279	5.4	18	214	12.8	23	224	7.9	20	264	10.4
4,000.....	18	280	10.3	25	273	16.9	20	291	16.7	30	262	9.1	21	285	13.5	16	287	17.5	15	280	21.4	19	267	11.4	10	280	7.1	20	287	11.2	20	268	15.2	20	273	12.0	17	266	12.7
5,000.....	15	285	11.1	24	272	21.0	19	286	17.3	29	263	12.8	19	289	16.9	15	280	21.4	19	267	11.4	10	280	7.1	20	287	11.2	20	268	15.2	20	273	12.0	17	266	12.7	13	276	14.8
6,000.....	13	292	12.5	23	274	24.6	15	282	20.9	29	266	14.7	17	290	22.1	14	279	24.0	18	271	13.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8,000.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10,000.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																					

TABLE 3.—Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot balloon observations during November 1945

Section	Surface to 2,500 meters (m. s. l.)					Above 2,500 to 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m.s.l.	Date	Station
Northeast ¹	44.4	SW.	1,427	7	Columbus, Ohio	48.3	NW.	3,607	16	Portland, Maine	73.0	WNW.	14,664	6	Albany, N. Y.
East-Central ²	42.2	N.	2,458	15	Chattanooga, Tenn.	46.5	W.	4,494	22	Nashville, Tenn.	80.0	SW.	9,479	3	Nashville, Tenn.
Southeast ³	40.0	NNW.	2,500	15	Atlanta, Ga.	45.6	NW.	4,421	15	Charleston, S. C.	54.6	W.	12,201	20	Jacksonville, Fla.
North-Central ⁴	43.6	WNW.	2,112	4	Williston, N. Dak.	50.6	NW.	4,053	24	Green Bay, Wis.	76.1	WSW.	7,867	9	Marquette, Mich.
Central ⁵	41.9	SW.	1,225	16	Kansas City, Mo.	53.2	W.	4,443	22	Goodland, Kans.	74.4	W.	8,485	12	Goodland, Kans.
South-Central ⁶	42.3	WNW.	1,736	4	Tulsa, Okla.	59.6	NW.	4,521	23	Texarkana, Ark.	100.0	WSW.	14,151	13	Big Spring, Tex.
Northwest ⁷	50.3	W.	2,500	11	Glasgow, Mont.	53.5	W.	4,831	4	Missoula, Mont.	80.0	NNW.	10,645	21	Pocatello, Idaho.
West-Central ⁸	38.1	WSW.	2,456	7	Pueblo, Colo.	50.6	NW.	4,177	26	Denver, Colo.	74.0	SW.	8,732	11	Denver, Colo.
Southwest ⁹	33.4	NW.	2,500	12	Sandberg, Calif.	60.0	W.	5,000	8	El Paso, Tex.	104.0	W.	6,143	8	El Paso, Tex.

¹ Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.

² Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.

³ South Carolina, Georgia, Florida, and Alabama.

⁴ Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.

⁵ Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.

⁶ Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.

⁷ Montana, Idaho, Washington, and Oregon.

⁸ Wyoming, Colorado, Utah, northern Nevada, and northern California.

⁹ Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS FOR NOVEMBER 1945

By C. R. JORDAN

Precipitation during November was above normal from eastern Arkansas and Tennessee northeastward over the Ohio Valley, the Middle and North Atlantic States, and the western Lake region; the northern Great Basin; the Pacific Northwest; and Wyoming. Amounts were much above normal in a broad strip extending from Tennessee to New York and Wyoming. State averages for New York and Pennsylvania were the highest for November in over 20 years. Precipitation was light over the Great Plains and quite generally over the southern half of the country. Virtually no rain fell in Arizona and New Mexico.

Stream flow was dominantly above normal and was excessive over broad areas in the Northeastern States and in parts of California, Nevada, and Oregon. A few stations reported the greatest run-off of record for November. However, the flow was well distributed throughout the month and no serious flooding resulted. Light local flooding was reported in Indiana and eastern Texas but caused little or no damage. Small floods were reported in northern California, western Oregon, and southwestern Washington.

FLOOD STAGE REPORT FOR NOVEMBER 1945

(All dates in November unless otherwise indicated)

River and station	Flood stage	Above flood stages— dates		Crest ¹	
		From—	To—	Stage	Date
MISSISSIPPI SYSTEM					
Ohio Basin					
West Fork: Edwardsport, Ind.	<i>Feet</i> 12	21	23	<i>Feet</i> 12.8	22
WEST GULF OF MEXICO DRAINAGE					
East Fork: Rockwall, Tex.	10	11	12	10.5	12
PACIFIC SLOPE DRAINAGE					
Columbia Basin					
Coast Fork: Saginaw, Oreg.	9	19	19	9.0	19
McKenzie:					
Leaburg, Oreg.	12	27	28	13.8	27
Coburg, Oreg.	11	28	28	11.3	28
Marys: Philomath, Oreg.	20	27	27	20.2	27
Santiam: Jefferson, Oreg.	13	27	29	18.4	28
South Yamhill:					
Willamina, Oreg.	8	26	27	11.0	26-27
Whiteson, Oreg.	38	27	29	41.6	27
Tualatin: Dilley, Oreg.	12	27	27	12.4	27
Willamette:					
Harrisburg, Oreg.	12	19	20	13.2	19
Oregon City, Oreg.	12	28	30	14.2	28
		30	30	12.3	30

¹ Provisional.

CLIMATOLOGICAL DATA FOR NOVEMBER 1945

CONDENSED CLIMATOLOGICAL SUMMARY OF TEMPERATURE AND PRECIPITATION BY SECTIONS

[For description of tables and charts, see REVIEW, January 1943, p. 15]

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and

lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.

Section	Temperature								Precipitation							
	Section average	Departure from the normal	Monthly extremes						Section average	Departure from the normal	Greatest monthly		Least monthly			
			Station	Highest	Date	Station	Lowest	Date			Station	Amount	Station	Amount		
°F.	°F.		°F.			°F.		In.	In.							
Alabama	57.0	+2.7	2 stations	87	12	Valley Head	16	24	3.55	+0.34	Waterloo	13.30	Robertsdale	0.94		
Arizona	50.4	-2	Granite Reef Dam	99	4	Alpine	-1	21	.01	-.95	Burrus Ranch	.20	102 stations	.00		
Arkansas	53.5	+2.2	Monticello	88	2	Gilbert	14	24	3.97	+.24	Parkin	11.47	Bentonville	.34		
California	50.3	-1.9	San Jacinto	96	1	Elery Lake	-10	30	3.14	+.73	Elk Valley	24.18	21 stations	.00		
Colorado	35.3	-1	Eversoll Ranch	86	5	3 stations	-22	22	.48	-.29	Winter Park	2.91	3 stations	.00		
Florida	64.9	-1	Eustis	93	11	Inverness	22	25	1.10	-1.03	Vero Beach	5.11	2 stations	.00		
Georgia	56.2	+1.7	2 stations	87	2	Clayton	14	24	2.40	+.18	Ellijay	4.77	Thomasville	.35		
Idaho	33.7	-1.6	Parma	76	3	Hill City	-17	21	2.89	+.82	Roland	11.06	May	.15		
Illinois	42.8	+.6	East St. Louis	82	1	2 stations	9	22	2.60	+.01	2 stations	5.40	Bluffs	.66		
Indiana	44.0	+1.6	Seymour	81	1	2 stations	12	14	3.38	+.33	North Vernon	6.38	Columbia City	1.16		
Iowa	36.9	+.5	2 stations	81	5	Belmond	3	22	1.25	-.35	Lansing	4.52	Mondamin	.04		
Kansas	45.8	+2.5	4 stations	88	5	Oberlin	0	23	.15	-1.10	Blue Rapids	.83	4 stations	.00		
Kentucky	48.1	+1.7	Lovelaceville	86	1	2 stations	16	24	5.64	+2.24	Corbin	9.83	Ford's Ferry, Dam	3.25		
Louisiana	62.0	+3.2	4 stations	88	12	Tallulah	22	24	2.39	-1.49	Winnfield	5.64	Pearl River	.83		
Maryland-Delaware	48.4	+3.1	Millsboro, Del.	81	2	2 stations	12	26	4.17	+1.35	Sines, Md.	6.48	Annapolis, Md.	1.68		
Michigan	37.3	+1.0	Holland	78	7	Garnet	-3	26	2.89	+.36	Mancelona	7.53	Whitefish Point	.17		
Minnesota	28.4	-1.2	Albert Lea	73	5	2 stations	-8	10	1.20	+.04	Winona	5.52	Ada	.10		
Mississippi	58.3	+3.2	Columbia	87	2	3 stations	19	24	4.22	+.60	Holly Springs	13.51	Rio	1.08		
Missouri	46.3	+1.8	Marshall	86	6	Maryville	6	22	1.30	-1.26	Campbell	5.15	Joplin	.20		
Montana	30.1	-2.0	6 stations	75	4	Ophelm No. 1	-30	9	1.09	+.07	Heron	6.68	3 stations	.00		
Nebraska	39.2	+1.8	2 stations	88	5	Nenzel (near)	-3	23	.16	-.58	Auburn	.81	13 stations	.00		
Nevada	40.5	+.6	Mesquite	86	6	2 stations	-9	21	.65	-.03	Montello	2.59	4 stations	.00		
New England	39.3	+1.3	Weston, Mass.	78	3	Presque Isle, Maine	-3	29	5.43	+1.87	East Wareham, Mass.	10.61	Ft. Kent, Maine	2.47		
New Jersey	46.1	+2.4	Clayton	80	2	2 stations	11	24	5.54	+2.28	Elizabeth	7.85	Burlington	3.01		
New Mexico	43.2	+.7	3 stations	89	14	3 stations	-10	21	.02	-.61	Dulce	.41	151 stations	.00		
New York	39.6	+1.5	Avon	76	7	Wanakena	1	26	4.95	+1.90	Cutchogue	8.08	Wilson	2.36		
North Carolina	51.9	+1.9	2 stations	85	11	Mt. Mitchell	2	23	2.90	+.26	Nantahala	5.80	Wadesboro	.25		
North Dakota	22.3	-4.4	Hettinger	75	4	Willow City	-26	10	.48	-.12	Mohall	1.55	Ashley	.08		
Ohio	43.3	+1.8	Chesapeake	80	1	3 stations	13	23	3.60	+.91	Athens	6.78	Holgate	1.21		
Oklahoma	52.8	+3.0	Hollis	94	5	Kenton	6	22	.45	-1.54	Wilburton	2.30	21 stations	.00		
Oregon	38.9	-1.4	Brookings	81	3	Austin	-5	21	6.09	+2.37	Valsetz	28.65	Plush	.29		
Pennsylvania	42.0	+.7	Marcus Hook	85	9	Corry	5	27	5.25	+2.35	Newburg	8.20	Austinburg	2.26		
South Carolina	55.7	+2.0	Walterboro	89	11	Caesars Head	15	24	1.56	-.74	Caesars Head	4.67	Blackville	.08		
South Dakota	32.9	-.3	Academy	82	5	Ralph	-13	8	.30	-.32	Camp Crook	1.18	2 stations	.00		
Tennessee	50.7	+2.2	5 stations	82	11	Crossville	12	24	7.28	+3.73	Brownsville	14.31	Tri-City	2.57		
Texas	60.7	+3.6	Falfurrias	94	12	Muleshoe	8	22	.88	-1.24	Anahuac	4.90	37 stations	.00		
Utah	35.7	-1.7	Zion National Park	78	2	Woodruff	-16	22	1.82	+.84	Rice Canyon	7.90	3 stations	.00		
Virginia	48.5	+1.9	2 stations	84	12	Big Meadows	9	24	3.43	+.99	Rose Hill	6.60	Cootes Store	1.62		
Washington	38.0	-1.7	3 stations	75	13	Chesaw	-7	8	6.51	+2.15	Petersons Ranch	27.25	Prosser (near)	.82		
West Virginia	44.9	+1.7	Charleston	84	13	Canaan Valley	4	26	5.29	+2.52	Pickens No. 2	9.29	Petersburg	2.75		
Wisconsin	33.4	.0	Brodhead	76	6	Big St. Germain Dam	-5	10	3.59	+1.70	Coddington	8.14	Cumberland	1.16		
Wyoming	32.1	+.5	Wheatland	79	11	2 stations	-21	22	.87	+.14	Grassy Lake Dam	6.68	Lookout	.03		
Alaska (October)	30.7	+.3	Susitna	63	1	Allakaket	-21	26	4.89	+1.24	Little Port Walter	48.17	Northway	.27		
Hawaii	72.9	+1.0	Lahaina	91	17	Haleakala, R. S.	41	17	4.62	-2.87	Makahalanaloa No. 2	34.00	Lahaina	.08		
Puerto Rico	75.2	-.9	Guayama	96	19	Cayey	47	126	4.30	-2.51	Mora Camp	9.74	Coamo Dam	.08		

¹ Other dates also.

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 1945

District and station	Elevation of instruments			Pressure		Temperature of the air										Total degree days	Mean temperature of the dew point	Mean relative humidity	Precipitation			Wind				Average cloudiness, tenths	Total snowfall	Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms				
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal	Mean	Departure from normal	Maximum	Date	Mean maximum	Minimum	Date	Mean minimum	Greatest daily range				Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Average hourly velocity	Prevailing direction	Maximum velocity					Clear days	Partly cloudy days	Cloudy days	
																									Miles per hour								Direction
NEW ENGLAND																																	
Eastport	75	67	85	1,013.5	1,016.9	+0.38.6	+1.9	57	3	44	21	17	33	23	792	32	80	6.90	+2.5	1.82	15	12.5	nw.	55	e.	20	6	7	17	7.0	9.8	9.0	0
Greenville, Maine	1,070	6	41	977.7	1,018.3	+1.037.8	+1.1	53	13	38	6	28	24	24	1,028	28	4.07	+1.0	1.05	12	12	nw.	50	e.	20	6	7	17	7.0	9.8	9.0	0	
Portland, Maine	103	5	43	1,013.2	1,017.3	+1.037.8	+1.1	53	13	38	6	28	24	24	819	33	88	5.10	+1.6	1.69	14	9.6	n.	50	e.	20	6	7	17	7.0	9.8	9.0	0
Concord	289	5	45	1,006.4	1,018.0	+1.037.8	+1.1	53	13	38	6	28	24	24	812	32	84	3.92	+1.8	1.28	16	8.2	nw.	39	e.	20	6	7	17	7.0	9.8	9.0	0
Burlington	403	5	51	1,001.7	1,017.3	+1.037.8	+1.1	53	13	38	6	28	24	24	822	32	82	3.45	+1.8	1.77	16	11.1	n.	33	s.	13	5	3	22	7.7	4.8	3.6	0
Boston	124	33	62	1,012.2	1,017.3	+1.037.8	+1.1	53	13	38	6	28	24	24	822	32	82	3.45	+1.8	1.77	16	11.1	n.	63	nw.	29	5	7	18	7.1	4.9	3.6	0
Nantucket	12	11	59	1,015.9	1,016.6	+1.047.4	+1.0	53	13	38	6	28	24	24	829	32	84	3.38	+1.3	1.59	13	14.2	n.	47	ne.	29	8	12	13	6.8	0	0	0
Block Island	26	11	46	1,015.2	1,016.6	+1.047.0	+1.0	53	13	38	6	28	24	24	839	40	80	6.84	+3.2	2.01	12	10.1	n.	54	ne.	29	6	13	11	6.2	0	0	1
Providence	159	46	60	1,011.2	1,017.3	+1.045.7	+1.0	53	13	38	6	28	24	24	879	36	80	5.50	+5.4	2.70	13	9.9	n.	38	se.	22	4	10	16	7.0	10.2	8.7	0
Hartford	159	5	44	1,018.0	1,018.0	+1.042.4	+1.0	53	13	38	6	28	24	24	879	36	80	5.81	+2.1	1.59	15	8.6	n.	42	nw.	20	4	10	16	7.0	10.0	8.7	0
New Haven	107	5	39	1,013.2	1,017.6	+1.043.7	+1.0	53	13	38	6	28	24	24	840	38	82	5.28	+2.2	1.28	14	8.2	ne.	32	se.	22	7	8	15	6.4	4.2	2.7	0
MIDDLE ATLANTIC																																	
Albany	97	29	40	1,013.5	1,017.3	+1.339.6	+2.8	68	9	47	17	27	32	36	759	34	80	4.36	+1.9	1.99	16	9.6	s.	38	w.	20	3	7	20	6.2	7.7	7.5	0
Binghamton	871	60	79	984.8	1,017.6	+1.441.5	+2.8	72	8	49	19	27	34	37	706	34	81	5.01	+2.6	1.39	16	6.7	n.	20	w.	20	3	7	20	6.2	7.7	7.5	0
New York	314	415	454	1,005.4	1,017.3	+1.747.4	+3.2	73	8	55	23	24	40	25	530	38	72	4.96	+2.0	1.93	15	16.7	n.	54	nw.	20	6	10	14	6.1	2.8	2.0	0
Harrisburg	374	30	40	1,004.1	1,018.3	+1.344.6	+1.8	73	9	53	22	24	36	35	613	35	74	5.54	+3.3	1.84	15	8.4	nw.	34	nw.	20	6	10	14	7.0	2	0	0
Philadelphia	114	5	57	1,012.5	1,017.3	+2.048.6	+2.9	75	8	56	25	24	41	25	496	38	80	5.69	+3.0	3.38	16	7.9	nw.	28	se.	22	10	13	17	5.9	2	0	0
Reading	323	47	306	1,005.8	1,018.3	+1.344.6	+1.9	73	9	53	22	24	36	35	575	35	75	5.07	+2.3	1.76	17	12.0	nw.	40	w.	22	7	10	13	6.5	1.6	4.1	0
Seranton	805	72	104	988.2	1,018.3	+1.742.4	+1.9	71	8	50	20	24	34	32	682	35	75	5.97	+3.2	1.42	17	6.8	n.	25	nw.	22	8	10	12	6.6	1.1	0	2
Atlantic City	52	37	172	1,018.0	1,018.0	+1.349.6	+4.0	71	3	56	25	24	43	43	465	44	84	3.28	+5.1	1.18	10	17.1	w.	57	se.	22	8	10	12	6.1	1.1	0	2
Trenton	190	89	107	1,010.2	1,018.0	+1.349.6	+2.6	73	8	55	24	34	39	29	540	37	74	4.04	+1.3	2.31	15	10.0	s.	34	ne.	28	8	10	12	5.7	0	0	0
Baltimore	123	100	215	1,013.5	1,018.3	+1.349.6	+3.3	77	9	57	27	24	42	28	464	38	72	3.92	+1.4	1.80	12	10.4	sw.	32	se.	22	10	9	11	5.7	0	0	1
Washington	112	56	100	1,013.9	1,018.6	+1.449.0	+3.8	78	2	58	26	24	40	36	485	38	72	4.62	+2.2	1.75	12	7.8	s.	25	n.	14	11	3	17	6.2	0	0	1
Cape Henry	18	8	54	1,017.3	1,018.3	+1.449.0	+3.8	78	2	58	26	24	40	36	485	38	72	4.62	+2.2	1.75	12	7.8	s.	25	n.	14	11	3	17	6.2	0	0	1
Lynchburg	686	4	50	993.2	1,018.6	+1.748.0	+2.8	78	2	58	24	23	38	34	511	36	72	3.33	+1.0	1.11	10	9.0	s.	26	n.	15	10	7	13	5.6	0	0	0
Norfolk	91	80	125	1,015.2	1,019.0	+1.654.2	+2.8	78	2	58	27	24	46	29	338	44	80	4.02	+1.9	2.45	10	9.0	s.	33	nw.	14	10	9	11	5.5	0	0	1
Richmond	144	11	52	1,012.9	1,018.6	+1.451.1	+2.8	82	2	61	26	24	41	36	423	40	75	3.12	+1.9	1.75	10	8.8	sw.	27	nw.	14	10	7	13	5.6	0	0	1
SOUTH ATLANTIC																																	
Asheville	2,253	77	92	989.0	1,020.0	+1.055.7	+2.3	79	2	58	21	23	37	41	513	36	72	2.96	+1.7	1.20	8	9.7	nw.	27	nw.	20	12	7	11	5.2	0	0	1
Charlotte	779	63	86	990.9	1,019.6	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Greensboro	886	6	56	1,019.3	1,019.3	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Hatteras	11	5	50	1,018.6	1,019.3	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Raleigh	376	5	69	1,005.1	1,019.3	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Wilmington	72	73	107	1,016.6	1,019.3	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Charleston	48	11	92	1,017.6	1,019.6	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Columbia, S. C.	347	70	91	1,006.4	1,019.6	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Greenville, S. C.	1,040	18	36	961.7	1,019.6	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Augusta	182	62	77	1,012.5	1,019.6	+1.055.7	+2.3	80	2	63	24	24	43	34	366	41	76	1.56	+1.0	1.09	6	6.9	sw.	21	sw.	19	13	6	11	5.1	0	0	0
Savannah	65	73	152	1,017.3	1,020.3	+1.060.0	+3.3	83	2	72	27	24	48	34	195	49	80	0.57	+1.5	1.40	4	9.2	w.	34	sw.	14	16	9	8	3.6	0	0	0
Jacksonville	43	86	110	1,018.0	1,020.0	+1.062.5	+3.3	84	2	72	32	24	53	28	157	52	84	0.53	+1.4	1.25	7	8.1	e.	29	nw.	14	15	13	2	3.5	0	0	0
FLORIDA PENINSULA																																	
Key West	21	10	64	1,015.6	1,016.6	+0.72.9	+1.4	83	22	78	54	25	68	16	8	65	82	3.83	+1.6	2.26	7	10.2	ne.	26	nw.	4	16	9	5	3.7	0	0	0
Miami	25	242	249	1,017.3	1,019.0	+0.69.8	+1.4	83	22	78	54	25	65	16	33	61	82	1.76	+2.0	3.32	12	14.6	ne.	34	ne.	11	11	12	7	3.9	0	0	0
Tampa	35	6	43	1,017.3	1,019.0	+0.69.8	+1.4	85	2	76	39	25	57	27	87	56	82	1.76	+1.0	3.36	4	9.5	ne.	36	ne.	12	16	9	5	3.9	0	0	0
EAST GULF																																	
Atlanta	1,173	33	72	977.7	1,020.0	+0.353.2	+1.7	79	1	63	24	24	43	36	360	42	72	3.24	+1.1	1.15	7	10.7	nw.	38	nw.	14	12	7	11	4.9	0	0	

CLIMATOLOGICAL DATA FOR WEATHER BUREAU STATIONS FOR NOVEMBER 1945—Continued

District and station	Elevation of instruments			Pressure			Temperature of the air										Precipitation			Wind				Snow, sleet, and ice on ground at end of month	Number of days with thunderstorms									
	Barometer above sea level	Thermometer above ground	Anemometer above ground	Station	Sea level	Departure from normal	Mean	Departure from normal	Maximum	Date	Mean	Minimum	Date	Mean	Greatest daily range	Total degree days	Mean temperature of the dew point	Mean relative humidity	Total	Departure from normal	Greatest in 24 hours	Days with 0.01 inch or more	Average hourly velocity			Prevailing direction	Maximum velocity							
																											Miles per hour	Direction						
OHIO VALLEY AND TENNESSEE																																		
Chattanooga ¹	762	6	66	991.5	1,019.6	-1.1	46.4	+2.3	78	1	62	21	24	40	40	413	44	78	5.27	+2.1	2.06	11	9.1	s.	35	nw.	21	9	10	11	6.7	0	4	
Knoxville ¹	995	27	53	983.4	1,020.0	+1.0	50.6	+4.1	79	11	61	23	24	40	35	433	40	80	4.02	+2.0	1.61	9	8.4	sw.	35	w.	27	12	5	13	5.5	0	2	
Memphis ¹	399	5	86	1,003.7	1,018.6	-1.4	53.0	+2.9	79	8	63	25	23	43	31	386	43	76	10.26	+6.0	4.07	13	9.6	s.	28	n.	13	12	7	11	5.1	0	8	
Nashville ¹	546	5	72	998.6	1,018.6	-1.4	50.1	+1.1	79	1	59	21	24	41	36	456	40	74	9.04	+5.5	3.61	12	11.0	s.	31	nw.	21	10	7	13	5.8	0	4	
Lexington ¹	989	4	28	981.7	1,019.3	-2.0	47.0	+1.6	80	1	55	22	23	38	30	563	38	78	5.15	+1.8	1.26	13	...	s.	30	w.	21	8	10	2	6.5	0	2	
Louisville ¹	325	106	120	998.6	1,018.0	-2.0	47.0	+2.0	79	1	56	22	23	39	33	547	38	78	5.23	+1.6	1.37	12	10.3	s.	34	sw.	21	8	10	2	6.7	0	4	
Evansville ¹	431	11	40	1,001.7	1,017.6	-2.4	46.2	+1.8	78	1	55	22	24	37	30	569	38	78	4.32	+1.6	1.30	12	10.9	s.	34	sw.	21	1	7	6	17	7.1	1.0	6
Indianapolis ¹	823	5	54	986.5	1,017.3	-2.0	42.2	+1.5	74	1	51	17	24	34	28	694	35	79	3.19	+1.9	1.21	17	12.1	s.	35	sw.	8	6	4	20	7.3	1.0	0	
Terre Haute ¹	575	68	149	995.9	1,017.6	-1.7	43.6	+2.4	76	12	54	22	24	36	30	638	36	80	5.18	+1.9	1.29	14	11.6	s.	31	sw.	21	7	2	21	7.1	1.0	0	
Cincinnati ¹	627	11	51	994.6	1,018.3	-1.7	45.9	+3.4	76	12	54	22	23	38	30	578	37	76	4.14	+1.9	1.29	12	9.1	s.	22	sw.	21	7	2	21	7.1	1.0	0	
Elkins ¹	1,947	4	45	943.2	1,019.3	-2.0	46.6	+2.8	77	1	55	24	23	38	30	578	36	74	4.89	+2.3	0.97	17	7.9	sw.	28	nw.	22	5	17	7.3	1.0	3		
Parkersburg ¹	637	77	84	994.2	1,018.0	-2.0	46.6	+2.8	77	1	55	24	23	38	30	578	36	74	4.89	+2.3	0.97	17	7.9	sw.	28	nw.	22	5	17	7.3	1.0	3		
Pittsburgh ¹	842	39	54	986.5	1,018.0	-1.3	43.4	+2.2	74	7	51	18	23	36	27	647	34	74	3.79	+1.5	0.79	17	10.9	s.	34	w.	22	2	6	22	7.8	0.6	0	
LOWER LAKES																																		
Buffalo ¹	768	34	96	987.8	1,016.6	-1.0	41.3	+2.6	70	7	48	19	24	34	30	727	33	78	3.05	+0.2	1.25	17	14.2	sw.	38	sw.	22	2	5	23	8.0	8.0	1	
Canton ¹	448	10	61	999.7	1,016.6	-1.0	41.0	+1.6	72	8	44	8	26	28	25	868	30	84	3.81	+0.9	0.92	17	9.1	sw.	30	e.	30	5	5	20	7.8	23.2	5.8	
Oswego ¹	335	71	85	1,003.7	1,016.6	-1.0	41.0	+1.6	72	8	44	8	26	28	25	868	30	84	3.81	+0.9	0.92	17	9.1	sw.	30	n.	15	2	4	24	8.2	10.0	6.8	
Rochester ¹	523	5	69	997.0	1,016.9	-2.0	40.6	+3.9	73	8	48	20	24	33	38	735	33	79	4.10	+2.0	1.13	15	15.0	sw.	37	w.	16	1	6	23	8.4	10.9	10.7	
Syracuse ¹	596	5	57	994.6	1,017.3	-2.0	40.6	+3.9	73	8	48	20	24	33	37	733	34	80	4.83	+1.8	1.23	18	10.5	sw.	32	se.	22	2	4	24	8.2	7.8	0	
Erie ¹	714	57	81	988.5	1,016.9	-1.1	44.0	+2.6	75	8	50	22	23	38	30	630	35	77	2.97	+1.8	1.23	17	9.8	sw.	27	se.	21	1	7	22	7.2	4.1	0	
Cleveland ¹	762	27	54	988.5	1,016.9	-1.4	43.2	+2.4	72	8	50	19	23	36	35	655	34	76	1.86	-0.8	0.57	12	12.7	s.	37	w.	21	2	9	19	7.8	1.3	0	
Sandusky ¹	629	5	67	992.9	1,016.6	-2.0	43.7	+2.9	73	8	51	19	23	37	32	641	34	80	1.61	+1.8	0.36	11	11.0	sw.	30	w.	22	5	5	20	7.4	1.3	0	
Toledo ¹	628	5	67	992.9	1,016.3	-2.0	41.6	+2.6	73	8	50	18	23	34	34	708	34	80	1.24	-1.2	0.46	9	12.9	sw.	34	sw.	22	2	7	21	7.9	2.2	0	
Fort Wayne ¹	857	5	33	984.1	1,016.3	-1.4	40.4	+2.6	71	8	49	17	23	32	34	741	34	83	1.55	-1.3	0.47	11	10.8	sw.	34	nw.	23	4	3	23	7.5	1.7	0	
Detroit ¹	730	5	78	988.8	1,016.6	-1.4	41.8	+2.6	69	8	49	19	23	35	32	699	34	76	1.27	-1.2	0.43	11	11.0	sw.	29	sw.	22	2	4	24	8.2	1.1	0	
UPPER LAKES																																		
Alpena ¹	600	5	89	991.5	1,014.2	-2.1	37.4	+3.0	65	8	44	18	23	31	29	826	31	79	2.08	-0.5	0.63	16	12.7	sw.	42	se.	1	1	8	21	8.1	3.2	0	
Escanaba ¹	612	51	72	990.5	1,013.9	-3.0	34.0	+9.5	54	8	40	11	10	26	24	928	28	78	5.63	+3.5	2.00	11	11.0	nw.	33	s.	12	3	6	21	8.0	8.9	3.0	
Grand Rapids ¹	707	70	244	988.2	1,014.9	-2.7	40.4	+2.0	69	8	47	19	23	34	32	741	32	80	2.65	-1.1	0.48	13	13.5	s.	33	sw.	12	3	6	22	8.0	9.2	0	
Lansing ¹	878	5	90	982.7	1,015.6	-2.0	39.3	+1.8	68	8	46	18	22	32	34	772	31	76	1.11	-1.4	0.28	14	10.3	sw.	27	sw.	8	4	24	8.3	6.0	1		
Marquette ¹	734	44	73	985.4	1,012.9	-3.7	33.5	+2.2	60	8	39	12	10	26	28	947	27	79	5.04	+2.1	1.48	14	9.2	w.	28	sw.	10	1	4	25	8.6	14.2	3.5	
Sault Sainte Marie ¹	614	11	52	990.2	1,013.9	-2.4	32.6	+2.2	58	13	38	10	26	27	976	27	83	3.12	+1.1	0.94	16	12.8	se.	39	sw.	13	2	4	24	8.4	15.4	4.1		
Chicago ¹	673	5	36	990.2	1,015.6	-2.7	39.8	+2.1	74	7	48	18	22	32	34	760	32	77	2.88	+4.4	0.82	10	12.3	s.	37	s.	16	3	9	18	7.6	7.0	0	
Green Bay ¹	617	5	32	990.9	1,014.2	-3.1	34.5	+5.5	65	8	41	18	10	28	33	916	28	77	3.91	+1.8	1.62	9	8.9	s.	28	s.	12	5	6	19	7.7	7.0	1.8	
Milwaukee ¹	681	33	66	989.5	1,014.6	-3.0	37.4	+1.5	70	7	45	15	22	30	33	832	32	82	2.34	+1.6	0.79	12	15.2	w.	60	s.	12	4	8	18	7.5	1.5	0	
Duluth ¹	1,133	5	47	970.9	1,013.5	-3.8	27.2	-2.8	44	5	33	3	10	21	30	1,137	24	92	1.78	+3.3	0.93	15	13.0	w.	47	nw.	22	2	4	24	8.5	5.8	0	
NORTH DAKOTA																																		
Fargo ¹	940	5	43	978.7	1,014.2	-4.1	26.0	-1.1	55	4	33	2	9	19	42	1,171	22	84	0.56	-0.1	0.16	4	14.4	s.	38	nw.	22	1	8	21	8.3	1.9	0	
Bismarck ¹	1,677	5	43	952.3	1,014.6	-3.7	23.9	-2.6	69	4	33	-11	9	15	44	1,229	18	82	0.27	-3.2	0.26	2	10.5	nw.	36	nw.	2	4	7	19	7.6	4.6	0	
Devils Lake ¹	1,478	11	44	959.0	1,014.6	-3.7	23.9	-5.1	55	4	26	-10	10	12	38	1,370	16	85	0.53	-2.1	0.48	4	9.5	nw.	28	nw.	2	2	5	23	8.4	10.9	2.8	
Grand Forks ¹	832	4	41	982.7	1,014.6	-2.0	23.0	-0.2	56	4	30	-2	10	17	39	1,241	20	85	0.08	-0.5	0.05	3	...	nw.	...	...	2	2	26	...	1.1	0	0
Williston ¹	1,878	42	50	944.5	1,013.5	-4.5	21.6	-6.2	61	4	29	-12	9	13	31	1,321	18	84	1.18	+6.7	0.71	7	6.2	n.	26	...	1	5	4	21	7.8	9.0	2.6	
UPPER MISSISSIPPI																																		
Minneapolis, St. Paul ¹	919	43	74	979.0	1,013.5	-4.5	31.8	+0.8	62	6	39	12	10	25	29	907	26	80	0.93	+0.3	0.35	11	13.0	se.	34	w.	8	3	5	22	7.8	4.5	0	
Springfield, Minn. ¹	1,025	4	42	979.0	1,014.6	-4.4	30.7	-0.6	62	5	39	8	21	23	42	1,030	25	80	0.78	-0.3	0.47	6	...	nw.	...	...	12	2	7	21	8.1	6.0	1.6
La Crosse ¹	714	5	29	987.1	1,013.9	-3.0	33.6	-1.6	65	6	41	15	22	26	34	943	28	82	2.70	+1.1	1.03	8	10.4	nw.	31	w.	8	4	2	22	7.7	10.3	2.4	
Madison ¹	974	70	78	978.3	1,014.6	-3.4	35.2	-0.7	7	42	12	22	28	37	889	30	81	2.69	+0.9	0.70	10	9.8	se.	29										

NOTE.—Except as indicated by notes 1, 2, 4, and 5 data in table are city office records.

SEVERE LOCAL STORMS FOR NOVEMBER 1945

[The table herewith contains such data as has been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the UNITED STATES METEOROLOGICAL YEARBOOK]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
Tennessee, from west of Millington to areas just north of Munford and Brighton.	November 1945	2			\$300,000	Hail and rain	Loss in crops, \$200,000; property damage, \$100,000. Storm covered 3-mile area.
Brownsville and Jackson, Tenn.		3				Heavy rain	Rainfall of 4.65 inches caused one of the worst flash floods in many years. In Jackson, basements flooded; 2 feet of water reported in the police station at City Hall.
Wyoming, east of the Big Horn Mountain in Sheridan, Johnson, and Campbell Counties.		7				Snowstorm	At Recluse and Rockypoint, Wyo., 12 and 10 inches of snow, respectively, reported during storm. Snow also heavy over Bear and Snake River watersheds.
Clinton, Wis., vicinity of Wisconsin, 7 southeastern counties.	8	P. m.			7,500	High winds	2 barns collapsed, killing 5 cattle.
	12	5:30-7:30 p. m.			25,000	Thundersqualls	Besides interrupting utility service, blowing over several trees, damaging several roofs, and unroofing a few buildings over the area, 1 plane wrecked and 2 others damaged at Milwaukee. Barn collapsed, killing 36 dairy cattle near Lake Geneva; another barn blown down in vicinity of Oshkosh. Maximum wind velocity at Milwaukee, 60 miles from the south at 7:20 p. m. This is the highest wind velocity of record for Milwaukee.
Chicago, Ill., and vicinity	13					Wind and rain	An 80-mile-an-hour wind, which lasted for about 60 seconds, uprooted dozens of trees, blew over telephone poles, smashed store windows, and damaged power lines. Heaviest destruction reported near Crystal Lake and north of Elgin. In the Crystal Lake area a large barn on the farm of George Gerke collapsed, carrying him 80 feet with part of structure. 14 telephone poles blown down; roof from barn blown off. Several persons injured.
Jefferson, Oswego, and Lewis Counties, N. Y.	23-25					Heavy snowfall	At Watertown, N. Y., depth of snow measured 36.5 inches. In cities, hundreds of automobiles snowed under, while on rural highways cars were stalled, abandoned, or buried in snow. Telephone and electric transmission lines broken. Damage of storm not estimated.

LATE STORM REPORTS FOR KANSAS, JUNE 1945

[Reports not included in Review of that month]

Place	Date	Time	Width of path, yards	Loss of life	Value of property destroyed	Character of storm	Remarks
McPherson, Kans., north-east of Stevens County, Kans., southwestern portion. Jefferson County, Kans., west-central portion. Ottawa, Kans., vicinity of.	June 1945 1		15		\$15,000	Hail	Loss in wheat.
Overbrook, Kans., 3 miles west.	2	6 p. m., M. W. T.	16		25,000	Heavy hail	Chief loss in crops; path 20 miles long.
Wabaunsee County, Kans., southeast corner. Savonburg, Kans., vicinity of.	6	9:30-10:40 p. m.			2,000	Hail	Chief loss in crops and gardens.
Topeka, Kans., southwest of Richfield and Rolla, Kans.	7	Midnight-12:15 a. m.	14		20,000	Heavy hail	Property damaged, \$15,000; loss in crops and fruit, \$5,000; path 10 miles long.
Overbrook, Kans., south-west of.	7	3:50-4 a. m.			1,000	Wind	Barn destroyed.
Norton, Kans., and vicinity.	7	8:15-9 p. m.	16		5,000	Hail	Chief damage to buildings. Hailstones size of hen eggs covered 60 percent of ground in places; path 10 miles long.
Valley Falls to Nortonville, Kans., and vicinities.	8		15		12,000	do.	Loss in crops spotted; livestock killed and buildings damaged. Some hailstones large enough to penetrate roofs of houses; path 10 miles long. Cloud apparently did not reach ground, so caused no damage.
Leavenworth, Kans.	9	2:30 p. m.		0		Small tornado	
Hickok, Kans.	9	6:20 p. m., M. W. T.	15		200,000	Hail	Chief loss in crops; path 30 miles long.
Barton County, Kans.	12	7:13-7:21 p. m.		0		Small tornado	Funnel cloud seen suspended about two-fifths of distance from cloud to ground; funnel disappeared without striking ground.
Bushton and Sterling, Kans., and vicinities.	15	11:20-11:45 a. m.			7,500	Hail	Chief damage to property.
Jewell and Mitchell Counties, Kans.	15	12:15-1:30 p. m.	12		12,000	Tornado winds and hail	Hail damage small; length of path, 8 miles.
Sananta, Kans., 4 miles north.	15	1:30 p. m.	210		20,000	Wind	Damage to buildings and signs; path 1 1/4 miles long.
Elk County, Kans.	16	P. m.	12		7,500	Hail	Loss in crops; path 4 1/4 miles long.
Woodson County, Kans.	19	6-8 p. m.	14		25,000	Heavy hail	Loss in crops; path 5 miles long.
Carlyle, Kans., north-central portion.	19	7:10 p. m.	14		200,000	do.	Trees, gardens, cars, and composition roofs badly damaged in Sterling; path 20 miles long.
Rooks County, Kans.	19	7:30-8 p. m.	2,640		20,000	Hail	Damaged area extended along line between the 2 counties; path 8 miles long.
Graham, Sheridan, and Trego Counties, Kans.	20	2:30 p. m., M. W. T.	12 1/4		6,000	do.	Loss in crops; path 4 miles long.
St. Peter to Morland, Kans., and vicinities.	20	4:30-5:10 p. m.	do.		30,000	Heavy hail	Chief loss in crops and gardens; path 12 miles long.
Ulysses to Hickok and Ryus, Kans., and vicinities.	20	4:30-5:30 p. m.	do.		7,500	do.	Severe to total crop and garden losses in Belmont township. Hailstones up to size of golf balls fell for short time and, in many places, drifted 4 to 5 inches deep; path 8 miles long.
Hugoton, Kans., 2 miles east.	20		13		7,500	Hail	Hail spotted; path 5 miles long.
Liberal, Kans.	23	4-6:30 p. m.	14		520,000	Heavy hail	Principal storm path passed 2 miles west of Stockton, traversed county diagonally to the southeastward. Much crop damage in the northeastern portion of the county. Heavy losses in poultry and game; path 26 miles long.
Englewood, Kans., vicinity of.	23	6 p. m., M. W. T.	110		50,000	do.	Much crop loss; livestock badly bruised, some killed. Hailstones large as baseballs; path 20 miles long.
Russell County, Kans.	23	7 p. m., M. W. T.	16		65,000	Wind and heavy rain.	Loss in crops; property damaged; path 8 miles long.
Ellis County, Kans.	25	9 p. m., M. W. T.	13	0	65,000	Small tornado and hail	Loss of 5,000 acres of wheat; damage to buildings from wind, \$15,000, included in estimate; path 6 miles long.
Solomon, Kans., vicinity of.	25	11 p. m., M. W. T.	1 1/4		22,500	High wind, hail, and rain.	Chief loss in row crops; path 30 miles long.
Ellsworth, Kans., and vicinity.	25	12:55 a. m.	13		210,000	Wind and hail	Heaviest loss occurred to installations of the Liberal Army Air Field; minor to serious injuries to 70 personnel. 10 buildings destroyed and many others damaged. Wind velocities up to 80 miles per hour reported. Buildings and gardens damaged in Liberal; crops severely damaged in Liberal and in storm path across the southwestern portion of county; path 12 miles long.
Brookville and Salina, Kans., and vicinities.	26	2 a. m.	12		15,000	Hail	Wheat badly damaged in a strip 1 to 3 miles west of Englewood; path 6 miles long.
Mitchell County, Kans.	26	6-7 p. m.	12		2,000,000	Tornado wind and hail	Loss in crops and property damaged in southern portion of county; 2 persons injured; path 24 miles long.
Thomas County, Kans.	26	6:30 p. m.	15		900,000	Wind and heavy hail	Heaviest crop loss in vicinity of Victoria; buildings damaged; path 30 miles long.
Oberlin, Kans., and vicinity.	26	6:30-7:30 p. m.	14		19,500	Wind and hail	Damage from hail, \$1,000; wind damage, \$18,500; path 8 miles long.
Graham County, Kans.	26	7:30 p. m.	12	0	25,000	Tornado and hail	Rural buildings damaged; loss in crops; path 20 miles long.
Pottawatomie County, Kans.	26	8:15-9:30 p. m.	14		200,000	Tornado wind and hail	Loss in crops, buildings, power lines, and trees. Damage to hangars and planes at the Smoky Hill Army Air Field; path 22 miles long.
Lincoln, Kans.	26	10:30 p. m.	13		15,000	Heavy hail	Spotted hail losses occurred in damaged area, which extended from west to east through the center of the county; path 17 miles long.
Butler and Cowley Counties, Kans.	30	2 a. m., M. W. T.	112		1,000,000	do.	Severe crop loss extending across the county from northwest to southeast; path 30 miles long.
Fort Scott, Kans.	30	2-3 a. m.	16		1,500,000	do.	Heaviest loss in crops which, in many places, were completely destroyed. Drifts of hailstones in draws still evident 48 hours after storm; path 24 miles long.
	30	3-4 a. m.	118		20,000	High winds and heavy hail	Crop loss in scattered areas, \$15,000; wind damage, \$5,000; path 30 miles long.
	30	5:15 a. m.	880		2,000	Hail	Loss in crops; path 3 miles long.
	30	6 a. m.	13		100,000	Heavy hail	Crop loss ranged to complete destruction, with extensive building damage; path 7 miles long.
	30	3:30-5 p. m.		0	110,000	Tornadoes	Several tornadoes appeared to originate in vicinity of Douglas, in southwestern Butler County, and moved southeastward near Rock and Atlanta, in Cowley County. Principal damage to rural buildings as well as crops in area where funnel reached ground. 8 funnel clouds reported; path 25 miles long.
	30	6:30-7:30 p. m.	115		12,500	High wind	123 trees damaged, 27 uprooted; street lights damaged; loss in crops; path 25 miles long.

¹ Miles instead of yards.

SOLAR RADIATION AND SUNSPOT DATA FOR NOVEMBER 1945

[Solar Radiation Investigation Section, I. F. Hand, in charge]

SOLAR RADIATION OBSERVATIONS

Explanations of the tables and references to descriptions of instruments, stations, and methods of observation, and to summaries of data, are given in the January 1944, MONTHLY WEATHER REVIEW, page 43. A list of the pyrheliometric stations is given on page 45 of the same REVIEW.

TABLE 1.—Solar radiation intensities during November 1945
[GRAM CALORIES PER MINUTE PER SQUARE CENTIMETER OF
NORMAL SURFACE]

Date	Sun's zenith distance										75th mer. time
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	Air mass										
	A. M.					*1.0	P. M.				
e.	5.0	4.0	3.0	2.0			2.0	3.0	4.0	5.0	e.

MADISON, WIS.											
Nov. 2	mb.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	cal.	mb.
Nov. 3	6.9	0.92	1.04	1.07	1.34	1.55	1.53	1.06	1.08	1.06	5.8
Nov. 9	3.8										3.5
Nov. 10	3.5	0.81	.96	1.11	1.34	1.55	1.53	1.06	1.08	1.06	3.7
Nov. 15	2.9	.79	.95	1.10	1.34	1.55	1.53	1.06	1.08	1.06	3.1
Nov. 15	3.3										4.0
Means		(.80)	.94	1.08	(1.34)	(1.54)					
Departures		-.07	-.05	-.06	+.03	+.02					

LINCOLN, NEBR.											
Nov. 1	7.4			1.09	1.31	1.50	1.32	1.14	0.99	0.90	8.7
Nov. 3	3.0	1.01	1.09	1.22	1.36			1.14	1.03	.92	3.2
Nov. 5	6.4	.94	1.03	1.16	1.34			1.14	1.03	.92	7.4
Nov. 8	5.6							1.16	1.05	.92	4.4
Nov. 9	2.2	.92	1.01	1.14			1.31				2.5
Nov. 13	4.0						1.31				5.3
Nov. 14	3.0	.68	.81	1.03	1.29		1.29	1.14	.98	.88	5.3
Nov. 15	5.1	.64	.77	.94	1.20						5.6
Nov. 16	5.8	.88	1.01	1.14	1.30		1.30				5.1
Nov. 19	3.3	.83	1.03	1.20				1.18	1.00	.92	4.8
Nov. 21	2.3		1.02	1.18							2.2
Nov. 23	2.1	.96	1.11	1.20							2.5
Nov. 27	4.2	1.01	1.14	1.27							4.0
Nov. 29	3.0		.28	.59				1.05	.92		5.3
Means		.88	.94	1.10	1.30	(1.50)	1.31	1.14	.98	.91	
Departures		-.01	-.07	-.06	-.06	-.06	-.03	-.03	-.05	-.01	

ALBUQUERQUE, N. MEX.											
Nov. 1	3.8		1.09	1.20							3.3
Nov. 2	2.4	1.06	1.15				1.21		1.01		2.7
Nov. 3	3.6	.92	1.07	1.20			1.32	1.22	1.10	1.03	4.2
Nov. 4	4.0		1.12	1.24	1.37						3.0
Nov. 5	4.2		1.09	1.20	1.34						3.8
Nov. 6	3.3						1.35	1.18			4.2
Nov. 8	3.4			1.32	1.43		1.43				2.1
Nov. 9	2.1	1.10	1.19	1.30	1.44		1.34	1.25	1.16	1.08	2.5
Nov. 10	1.3	1.05	1.14	1.25	1.36						1.9
Nov. 11	2.2						1.07				3.2

TABLE 1.—Solar radiation intensities during November 1945—Con.

Date	Sun's zenith distance										75th mer. time
	7:30 a. m.	78.7°	75.7°	70.7°	60.0°	0.0°	60.0°	70.7°	75.7°	78.7°	1:30 p. m.
	Air mass										
	A. M.					*1.0	P. M.				
e.	5.0	4.0	3.0	2.0			2.0	3.0	4.0	5.0	e.

ALBUQUERQUE, N. MEX.—Continued											
Nov. 12	2.5	1.01	1.14	1.27			1.38				2.5
Nov. 13	3.8		1.11	1.24			1.38	1.27	1.15	1.10	3.0
Nov. 14	2.4	1.10	1.18	1.28	1.42		1.24				2.4
Nov. 16	2.5		1.07	1.21			1.35	1.22	1.11	1.03	3.0
Nov. 17	2.3	.98	1.10	1.22	1.38		1.29	1.22	1.16		2.7
Nov. 18	2.1		1.14	1.24			1.41	1.30	1.19	1.06	3.0
Nov. 19	1.6						1.24	1.12	1.01		4.6
Nov. 20	2.3	.62	.75	1.00	1.37		1.34	1.29	1.16		2.2
Nov. 21	1.1	1.13	1.20	1.28	1.44		1.42	1.24	1.18	1.14	1.3
Nov. 22	0.6	1.02	1.15				1.42	1.24	1.18	1.14	3.4
Nov. 23	1.1		1.19	1.28	1.43		1.27	1.16	1.10		1.8
Nov. 24	1.1	.90	1.04	1.21	1.39		1.40				2.1
Nov. 25	1.4	1.05	1.15				1.22	1.16	1.07		2.3
Nov. 27	2.4			1.27	1.35		1.30	1.18	1.08	.96	2.6
Nov. 28	3.0		1.01	1.30			1.30	1.18	1.08	.96	3.2
Nov. 29	2.3	.98	1.12	1.22	1.44						3.0
Nov. 30	3.0						1.18	1.05	.96		2.7
Means		.99	1.10	1.24	1.40		1.35	1.24	1.13	1.06	
Departures		-.01	-.01	+.02	+.03		-.02	+.01	+.02	+.06	

BLUE HILL, MASS.											
Nov. 1	5.5	0.97	1.06	1.15	1.30		1.31				4.0
Nov. 3	14.8						1.03				15.3
Nov. 5	5.2						1.16	0.96	0.85		4.6
Nov. 6	4.3	.78	.90	1.07	1.25		1.25	1.07	.91	.79	5.4
Nov. 8	13.4			.90							12.3
Nov. 15	6.4						1.26	1.13	1.05		2.5
Nov. 16	4.4						1.19	1.09	.99		4.0
Nov. 19	5.8	.90	1.01	1.14							6.9
Nov. 21	5.3	.95	1.08	1.17	1.32						5.1
Nov. 23	4.5	.71								.64	5.1
Nov. 24	3.4						1.17	.99	.88	.77	2.9
Nov. 25	4.0						1.17	.83	.62	.49	4.4
Nov. 26	4.1							.87	.77	.60	3.8
Nov. 27	3.2	.96	1.07								5.4
Means		.88	1.02	1.09	1.29		1.19	1.05	.91	.78	
Departures		-.03	+.01	-.04	+.02		-.06	-.05	-.05	-.05	

BOSTON, MASS.											
Nov. 1	5.1				1.15						4.4
Nov. 6	4.6			0.90	.86			0.60	0.70	0.63	6.6
Nov. 27	3.7	0.60	0.44	.60							6.1
Means		(0.69)	(0.44)	(0.75)	(1.00)			(0.60)	(0.70)	(0.63)	
Departures		-.02	-.33	-.15	-.10			-.33	-.15	-.10	

RATIO, BOSTON/BLUE HILL, ON COMPARABLE DATES											
		(0.72)	(0.41)	(0.84)	(0.78)			(0.56)	(0.77)	(0.80)	

* Extrapolated.

TABLE 2.—Daily totals and weekly means of solar radiation (direct + diffuse) received on a horizontal surface

[Gram calories per square centimeter]

Date	Washington, D. C.	Madison, W's.	Lincoln, Nebr.	East Lansing, Mich.	New York, N. Y.	Fresno, Calif.	Fairbanks, Alaska	Columbia, Mo.	Boston, Mass.	Nashville, Tenn.	Twin Falls, Idaho	La Jolla, Calif.	Riverside, Calif.	Blue Hill, Mass.	Newport, R. I.	State College, Pa.	Put-in-Bay, Ohio	East Wareham, Mass.	Davis, Calif.	Tooele, Utah	New Orleans, La.	Toronto, Canada
1945	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.	Cal.
Oct. 29	333	238	288	194	146	35	25	217	173	318	141	244	112	194	213	306	311	266	271	263	301	226
Oct. 30	286	177	149	203	242	326	43	247	217	274	152	152	139	233	266	271	286	266	271	286	251	259
Oct. 31	317	275	165	258	250	289	61	262	218	262	72	376	305	243	260	87	365	394	353	382	347	
Nov. 1	276	39	308	94	279	210	111	198	256	300	185	367	363	317	296	315	152	296	315	152	410	387
Nov. 2	210	231	107	244	90	347	40	310	169	25	155	369	376	190	160	66	269	256	411	340	346	167
Nov. 3	154	176	310	162	89	343	32	352	187	357	260	347	377	208	234	80	232	254	406	328	204	13
Nov. 4	137	167	296	107	40	332	120	325	3	286	270	350	372	9	14	217	218	33	380	373	430	17
Means	244	186	232	179	162	269	62	273	173	290	176	315	296	200	206	192	262	262	334	324	362	207
Departures	-2	+1	-2	+26	-48	-54	+15	+15	+9	+42	-33	-29	-12	-18	-21	+13	+68	-----	+25	+31	+45	-----
Nov. 5	295	260	289	223	286	308	9	338	180	326	259	170	211	208	212	206	287	165	363	362	418	97
Nov. 6	295	167	244	191	120	147	20	287	232	196	103	98	141	287	263	259	273	282	309	223	233	157
Nov. 7	273	136	112	33	171	336	18	228	156	136	146	357	394	182	222	277	126	239	400	226	207	9
Nov. 8	280	45	154	83	201	274	33	36	212	266	238	314	379	246	258	183	206	-----	370	347	321	6
Nov. 9	258	281	271	75	118	324	19	327	155	20	106	335	384	158	192	137	82	-----	126	300	320	12
Nov. 10	47	267	236	171	32	242	23	297	34	22	57	320	339	37	73	58	112	63	252	258	365	12
Nov. 11	38	89	16	117	13	333	42	66	38	53	157	308	274	50	59	22	81	49	356	157	322	4
Means	212	178	189	128	134	280	23	226	144	146	162	272	303	167	183	163	162	167	311	276	325	-----
Departures	-9	+16	-37	+13	-49	-11	-14	+24	+9	-54	-54	-40	+7	-17	-16	+4	+7	-6	+45	+26	+18	-----
Nov. 12	67	26	148	59	25	188	41	110	45	218	111	325	344	53	38	161	137	53	100	129	276	-----
Nov. 13	106	130	254	24	83	251	38	244	53	16	186	326	344	52	72	147	107	60	376	349	319	-----
Nov. 14	91	254	254	86	34	194	65	268	27	177	228	312	349	27	21	41	80	20	163	338	377	-----
Nov. 15	293	265	224	178	249	163	68	301	161	309	87	203	260	177	195	299	278	184	212	169	389	17
Nov. 16	296	191	242	102	223	223	64	111	191	277	101	320	331	163	129	255	177	125	105	243	309	-----
Nov. 17	280	47	241	14	162	287	46	259	76	89	149	304	257	128	148	64	30	186	317	216	321	-----
Nov. 18	264	97	213	174	89	288	44	273	60	254	185	321	336	61	125	107	247	72	317	315	310	13
Means	200	143	225	91	124	228	52	224	88	192	150	302	317	94	104	153	151	100	227	251	339	-----
Departures	-1	-10	+16	-8	-25	-20	+24	+48	-24	-4	-14	+9	+41	-63	-76	+4	+20	-66	-11	+6	+65	-----
Nov. 19	30	216	260	21	49	204	50	279	138	161	92	324	338	164	130	26	125	156	237	90	218	-----
Nov. 20	281	102	112	157	279	86	26	164	67	274	203	309	328	80	258	194	154	158	342	336	180	11
Nov. 21	225	15	270	22	169	130	44	193	169	20	255	307	331	235	229	160	30	232	238	358	266	4
Nov. 22	278	147	223	64	169	223	4	223	23	271	248	320	325	25	29	169	55	26	226	341	405	4
Nov. 23	174	196	250	147	180	263	11	285	156	87	182	266	307	187	187	109	100	200	178	229	389	-----
Nov. 24	215	224	242	104	177	106	(T)	272	182	272	124	297	296	214	189	74	138	208	68	136	338	-----
Nov. 25	181	37	209	38	167	204	4	253	167	230	116	268	271	188	182	100	47	186	238	289	265	-----
Means	198	134	224	80	170	186	20	238	129	188	174	299	314	156	172	120	93	100	218	254	293	-----
Departures	+14	+3	+28	+33	+28	-50	+3	+80	+24	+12	+15	+3	+34	+7	+12	-14	-23	+14	-3	+15	+22	-----
Nov. 26	231	125	132	115	192	174	6	166	175	226	115	243	289	202	190	250	230	-----	265	276	265	-----
Nov. 27	193	19	238	12	158	175	10	201	131	176	95	294	303	190	235	185	56	267	206	233	190	-----
Nov. 28	33	28	136	34	24	140	(T)	219	60	52	66	244	290	89	109	13	37	114	69	229	324	-----
Nov. 29	30	33	205	16	6	200	1	106	17	30	60	120	150	23	18	63	37	22	303	70	335	-----
Nov. 30	110	34	93	21	78	81	5	112	36	60	142	258	289	38	33	60	29	-----	326	64	342	11
Dec. 1	223	55	40	159	134	162	20	-----	69	190	204	108	161	76	108	214	183	-----	293	265	342	14
Dec. 2	259	18	16	14	208	140	1	-----	152	80	195	290	301	176	91	190	56	-----	222	328	318	-----
Means	154	45	123	53	114	153	6	-----	92	116	125	222	255	113	112	139	90	-----	240	214	302	-----
Departures	-11	-78	-55	-28	-14	-53	-6	-----	-10	-21	-21	-48	+1	-37	-45	+18	-15	-----	+37	-21	+66	-----

ACCUMULATED DEPARTURES ON DECEMBER 2, 1945

+2,170	+11,515	-7,133	-4,844	-10,458	-1,813	-3,472	-----	-3,003	-1,337	-9,961	-17,304	+6,055	-8,435	-11,200	+3,262	-28	-----	+21	-----	-----	-----
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T=Trace of solar radiation.

NOTE.—Beginning with the September issue, values of total solar and sky radiation received on a horizontal surface at Toronto, Canada, have been included in table 2. The coordinates of the station are as follows: Latitude 42°49' N; Longitude 79°24' W; and elevation (pyrheliometer), 20 meters above the ground. The pyrheliometer is mounted on the tower of the observatory occupied by the Meteorological Division of Transport. The exposure is ideal, with negligible shading by buildings a considerable distance away. Located slightly more than a mile north of the main business section, data from this station represent average conditions for the more urban residential areas of Toronto.

ADDITIONAL DATA FOR FAIRBANKS, ALASKA, OCTOBER 1945

Date	Mean	Departure
Oct. 1-7	107	-5
Oct. 8-14	74	-17
Oct. 15-21	78	+7
Oct. 22-28	74	+14

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR NOVEMBER 1945

By LUCY T. DAY

[Equatorial Division, U. S. Naval Observatory]

[Communicated by Commodore J. F. Hellweg, U. S. N. (Ret.) Superintendent, U. S. Naval Observatory.] All measurements and spot counts were made at the Naval Observatory from plates taken at the observatories indicated. Difference in longitude is measured from the central meridian, positive toward the west. Latitude is positive toward the north. Areas are corrected for foreshortening and expressed in millionths of Sun's hemisphere. For each day, under longitude, latitude, area of spot or group, and spot count are included assumed longitude of center of the disk, assumed latitude of center of the disk, total areas of spots and groups, and total spot count.

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- fer- ence in longi- tude	Longi- tude	Lat- tude	Dis- tance from center of disk				
1945 Nov. 1	A M		°	°	°	°				
	11 34	7877	-65	58	-22	68	97	1	F	U. S. Naval.
		7876	-10	113	-19	26	24	2		
		7876	-3	120	-16	20	12	1		
		7876	-1	122	-16	20	121	1		
		7874	+13	136	-25	31	145	1		
		7873	+16	139	+21	23	16	2		
		7873	+21	144	+22	27	6	1		
		7871	+60	183	-42	71	12	1		
		7871	+70	193	-39	77	24	1		
		7875	+73	196	+19	73	291	1		
		7871	+79	202	-39	84	12	1		
		7875	+82	205	+18	82	242	4		
			(123)	(+4)			1,002	17		
2	10 12	7877	-51	59	-22	56	145	1	P.	Do.
		7876	+10	120	-16	23	6	2		
		7876	+12	122	-16	23	97	1		
		7874	+26	136	-24	37	145	1		
		7875	+87	197	+19	87	291	1		
			(110)	(+4)			684	6		
3	12 52	7877	-37	58	-22	45	121	1	P	Do.
		7876	+24	119	-15	30	12	2		
		7876	+26	121	-16	32	97	1		
		7874	+40	135	-24	47	121	1		
		7873	+43	138	+22	45	6	1		
		(*)	+55	150	+25	58	6	1		
			(95)	(+4)			363	7		
4	10 58	7878	-64	19	+11	64	12	1	G	Mt. Wilson.
		7877	-26	57	-21	35	6	1		
		7877	-24	59	-21	34	73	1		
		7876	+38	121	-14	42	12	1		
		7876	+40	123	-14	43	73	1		
		7874	+53	136	-23	59	121	1		
		7873	+54	137	+22	56	12	5		
			(83)	(+4)			309	11		
5	11 34	7878	-52	18	+12	53	6	1	F	U. S. Naval.
		7879	-46	24	-26	53	6	2		
		7877	-12	58	-22	28	24	1		
		7877	-11	59	-21	28	61	2		
		7876	+52	122	-15	55	73	3		
		7874	+65	135	-24	70	121	1		
			(70)	(+4)			291	10		
6	13 30	7879	-36	20	-26	44	24	6	F	Do.
		7879	-33	23	-26	43	97	2		
		(*)	-23	33	-13	27	24	3		
		7877	+1	57	-21	25	6	1		
		7877	+3	59	-22	25	73	2		
		7876	+66	122	-15	68	24	2		
		7874	+80	136	-24	80	121	1		
			(56)	(+4)			369	17		
7	13 16	7879	-19	24	-26	35	48	2	P	Do.
		7877	+16	59	-22	30	73	1		
		7880	+17	60	-15	26	12	1		
			(43)	(+4)			133	4		
8	11 7	7879	-7	24	-26	30	48	6	F	Do.
		7877	+29	60	-22	38	73	1		
		7880	+30	61	-15	35	6	1		
		7881	+46	77	-20	51	12	5		
			(31)	(+4)			139	13		
9	10 36	7882	-79	299	-22	80	170	1	P	Do.
		7877	+40	58	-22	47	61	1		
		7881	+60	78	-20	63	6	2		
		(*)	+75	93	+25	75	12	2		
			(18)	(+3)			249	6		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR NOVEMBER 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- fer- ence in longi- tude	Longi- tude	Lat- tude	Dis- tance from center of disk				
1945 Nov. 10	A M		°	°	°	°				
	15 50	7883	-68	294	-23	71	73	1	G	Mt. Wilson.
		7882	-60	302	-22	64	97	1		
		7877	+57	59	-21	61	48	1		
			(2)	(+3)			218	3		
11	11 3	7885	-79	272	-20	80	97	1	F	Do.
		7883	-58	293	-23	62	73	1		
		7882	-50	301	-22	56	145	1		
		7884	+20	11	+21	26	24	1		
		7884	+24	15	+21	30	61	1		
		7877	+69	60	-21	71	12	1		
			(351)	(+3)			412	6		
12	10 39	7885	-66	272	-19	68	97	1	F	Do.
		7883	-43	295	-22	49	85	1		
		7886	-38	300	-11	41	12	2		
		7882	-36	302	-21	42	145	1		
		7884	+36	14	+21	38	97	15		
		7884	+39	17	+22	41	24	3		
			(338)	(+3)			460	23		
13	14 8	7888	-73	250	-25	77	48	2	F	U. S. Naval.
		7887	-54	269	-19	50	6	2		
		7887	-52	271	-18	57	12	1		
		7885	-51	272	-19	57	145	3		
		7883	-30	293	-22	38	48	1		
		7882	-21	302	-21	32	121	1		
		7886	-20	303	-13	26	24	4		
		7884	+60	13	+19	51	61	1		
		7884	+55	18	+21	57	73	2		
			(323)	(+3)			538	17		
14	11 21	7888	-68	243	-25	70	48	2	P	Do.
		7889	-62	249	+30	64	24	1		
		7888	-61	250	-25	66	97	1		
		7887	-41	270	-16	45	48	1		
		7885	-40	271	-19	44	170	1		
		7887	-39	272	-16	43	24	3		
		7883	-19	292	-21	31	48	1		
		7882	-11	300	-21	27	97	1		
		7886	-8	303	-13	17	24	3		
		7884	+60	11	+19	61	194	1		
		7884	+64	15	+20	66	48	2		
		7884	+64	15	+18	65	73	1		
			(311)	(+3)			895	18		
15	12 1	7888	-52	246	-24	57	36	1	G	Do.
		7889	-50	248	+28	54	12	1		
		7888	-47	251	-25	54	24	2		
		7887	-28	270	-17	35	24	2		
		7885	-26	272	-19	33	73	2		
		7887	-24	274	-16	30	12	1		
		7891	-13	285	-23	30	48	5		
		7883	-5	293	-22	26	24	3		
		7882	+5	303	-21	24	97	4		
		7884	+76	14	+20	76	242	7		
			(298)	(+3)			592	28		
16	11 24	7888	-40	245	-24	47	12	1	F	Do.
		7889	-39	246	+29	45	6	1		
		7888	-35	250	-25	43	24	2		
		7888	-34	251	-23	42	36	5		
		7885	-14	271	-18	25	48	2		
		7891	-2	283	-25	28	36	2		
		7891	+3	288	-24	27	48	4		
		7883	+7	292	-22	26	73	1		
		7882	+15	300	-21	28	97	4		
		7890	+61	346	-19	65	6	2		
			(285)	(+3)			386	24		
17	9 52	7888	-30	243	-25	40	12	3	G	Do.
		7888	-30	243	-23	39	24	4		
		7888	-22	251	-25	35	12	1		
		7888	-22	251	-23	34	61	6		
		7888	-21	252	-22	32	36	5		
		7888	-20	253	-23	33	24	2		
		7888	-18	255	-23	32	24	2		
		7885	-2	271	-19	22	36	3		
		7891	+11	284	-25	30	48	7		
		7891	+15	288	-24	30	36	4		
		7882	+27	300	-21	36	61	3		
			(273)	(+3)			374	40		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR
NOVEMBER 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- ference in longi- tude	Lon- gi- tude	Lat- tude	Dis- tance from center of disk				
1945 Nov. 18	A m 10 49	7888	-17	242	-26	32	12	2	F	U. S. Naval.
		7888	-10	249	-23	27	97	6		
		7888	-10	249	-26	29	12	2		
		7888	-6	253	-25	27	12	2		
		7885	+12	271	-20	25	24	3		
		7891	+29	288	-25	38	48	2		
		7882	+40	290	-22	45	73	9		
		7892	+60	319	+20	61	24	1		
			(250)	(+2)			302	27		
19	12 3	7894	-75	170	-30	78	97	1	F	Mt. Wilson
		7893	-62	193	-38	62	12	1		
		7889	+1	246	+31	29	6	2		
		7888	+1	246	-30	32	24	4		
		7888	+5	250	-28	30	24	5		
		7888	+9	254	-27	30	12	5		
		7885	+26	271	-21	35	24	2		
		7891	+44	280	-25	50	24	4		
		7882	+60	305	-23	63	6	2		
		7892	+78	323	+24	79	6	1		
			(245)	(+2)			235	27		
20	11 54	7894	-56	176	-38	65	24	1	G	U. S. Naval.
		7893	-38	194	-37	52	12	1		
		7888	+13	245	-27	33	24	3		
		7888	+15	247	-28	34	24	2		
		7895	+17	249	+15	21	24	4		
		7891	+62	284	-23	56	24	2		
		7891	+55	287	-22	59	97	2		
		7891	+57	289	-24	61	145	6		
			(232)	(+2)			374	21		
21	11 20	7897	-54	165	-32	61	24	1	F	Do.
		7894	-43	176	-36	56	12	1		
		7896	-14	205	+28	30	48	2		
		7896	-13	205	+30	32	36	1		
		7891	+66	285	-24	69	242	5		
		7891	+70	289	-23	73	97	2		
		7891	+70	289	-25	74	194	2		
			(219)	(+2)			653	14		
22	10 15	7900	-80	126	-21	80	12	1	F	Do.
		7897	-46	160	-31	55	48	2		
		7897	-42	164	-32	51	61	2		
		7890	-33	173	-17	37	6	2		
		7898	-10	196	+28	28	6	3		
		7896	-1	205	+28	26	24	5		
		7896	0	206	+30	28	24	1		
		7896	+1	207	+29	27	24	2		
		7891	+78	284	-24	79	215	4		
		7891	+84	290	-24	84	242	4		
			(206)	(+2)			666	26		
23	10 56	7902	-80	113	-22	80	6	1	P	Do.
		7900	-66	127	-23	69	12	1		
		7897	-34	159	-32	46	36	1		
		7897	-28	165	-32	42	73	2		
		7898	+1	194	+28	26	61	6		
		7898	+4	197	+27	25	73	1		
		7896	+12	205	+28	29	12	1		
		7896	+15	206	+29	31	24	1		
		7901	+16	209	+19	24	24	3		
		7901	+19	212	+18	25	48	3		
			(193)	(+2)			389	20		

POSITIONS, AREAS, AND COUNTS OF SUNSPOTS FOR
NOVEMBER 1945—Continued

Date	East- ern stand- ard time	Mount Wilson group No.	Heliographic				Area of spot or group	Spot count	Plate qual- ity	Observatory
			Dif- ference in longi- tude	Lon- gi- tude	Lat- tude	Dis- tance from center of disk				
1945 Nov. 24	A m 10 47	7900	-52	126	-22	56	24	1	F	U. S. Naval.
		7897	-13	167	-30	33	48	1		
		7898	+12	192	+29	30	194	7		
		7898	+17	197	+30	32	73	5		
		7898	+18	198	+28	32	48	1		
		7896	+27	207	+31	38	145	13		
		7896	+30	210	+30	39	73	3		
		7901	+30	210	+20	34	48	2		
		7901	+34	214	+19	37	12	1		
			(180)	(+2)			665	34		
25	11 4	7897	0	166	-30	32	24	1	F	Do.
		7898	+27	193	+29	37	145	3		
		7898	+32	196	+28	40	121	5		
		7896	+39	205	+29	45	48	8		
		7896	+45	211	+29	50	97	5		
		7901	+47	213	+19	50	24	9		
			(166)	(+2)			490	31		
26	12 0	7903	+7	160	+9	11	97	10	G	Do.
		7897	+15	168	-31	35	6	1		
		7896	+39	192	+29	45	73	6		
		7898	+46	199	+27	51	121	2		
		7896	+50	203	+29	55	48	7		
		7896	+58	211	+29	60	121	6		
		7901	+60	213	+18	61	24	2		
			(153)	(+1)			490	34		
27	11 28	7904	-73	67	-15	75	48	6	F	Do.
		7906	-41	99	-29	49	6	1		
		7903	+18	158	+18	24	6	1		
		7903	+21	161	+9	22	121	10		
		7905	+31	171	-39	49	12	2		
		7898	+50	190	+29	55	73	4		
		7898	+59	199	+28	61	188	2		
		7896	+70	210	+30	72	145	4		
			(140)	(+1)			509	30		
28	11 16	7904	-61	66	-14	63	48	3	G	Mt. Wilson.
		7904	-57	70	-14	58	24	8		
		7906	-25	102	-28	38	24	6		
		7906	-22	105	-29	36	12	3		
		7903	+33	160	+10	34	24	9		
		7903	+37	164	+10	38	73	14		
		7906	+45	172	-38	56	36	2		
		7898	+68	195	+30	70	48	5		
		7898	+71	198	+27	73	145	3		
		7896	+86	213	+30	86	121	4		
			(127)	(+1)			556	57		
30	11 33	7904	-33	67	-14	36	145	10	P	U. S. Naval.
		7904	-29	71	-14	32	194	2		
		7903	+60	160	+10	60	6	1		
		7907	+60	160	+27	62	48	1		
		7907	+67	167	+28	69	109	4		
			(100)	(+1)			502	18		

Mean daily area for 29 days=457

*Not numbered.
VG=very good; G=good; F=fair; P=poor.

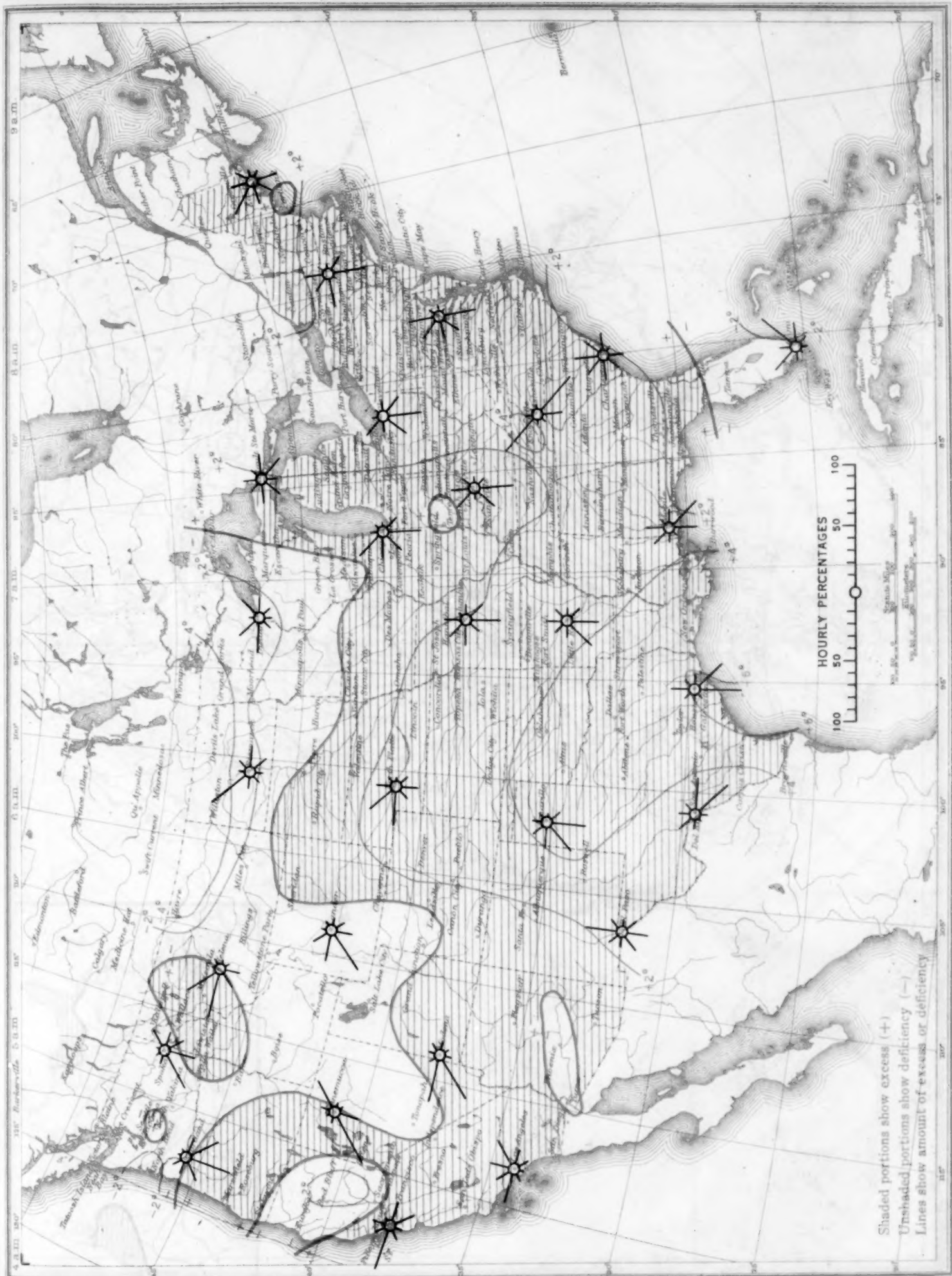
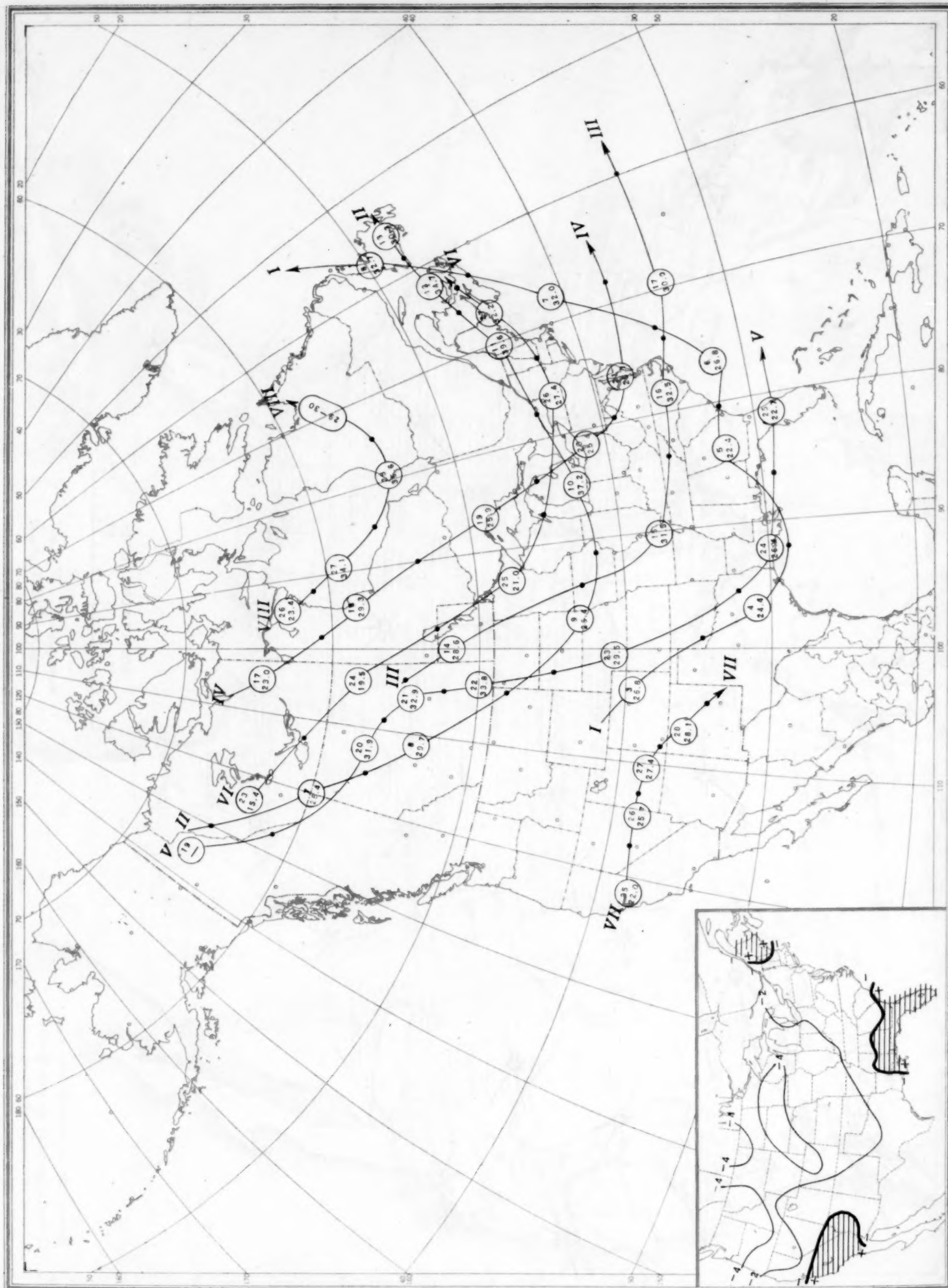
Chart I. Departure ($^{\circ}\text{F}$) of the Mean Temperature from the Normal, and Wind Roses for Selected Stations, November 1945

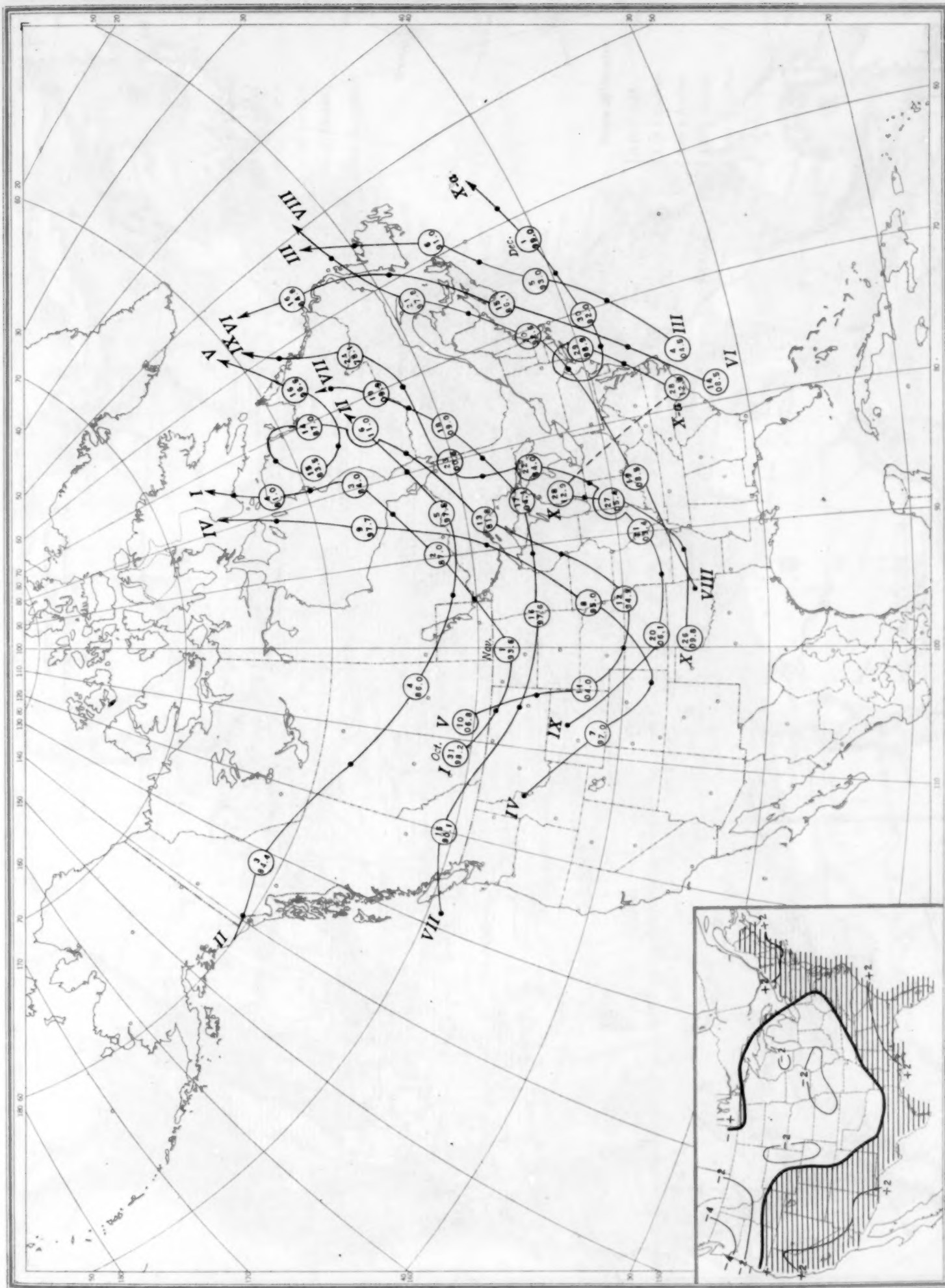
Chart II. Tracks of Centers of Anticyclones, November 1945. (Inset) Departure of Monthly Mean Pressure from Normal
(Plotted by D. R. Harris)



Circle indicates position of anticyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of anticyclone at 7:30 p. m. (75th meridian time)

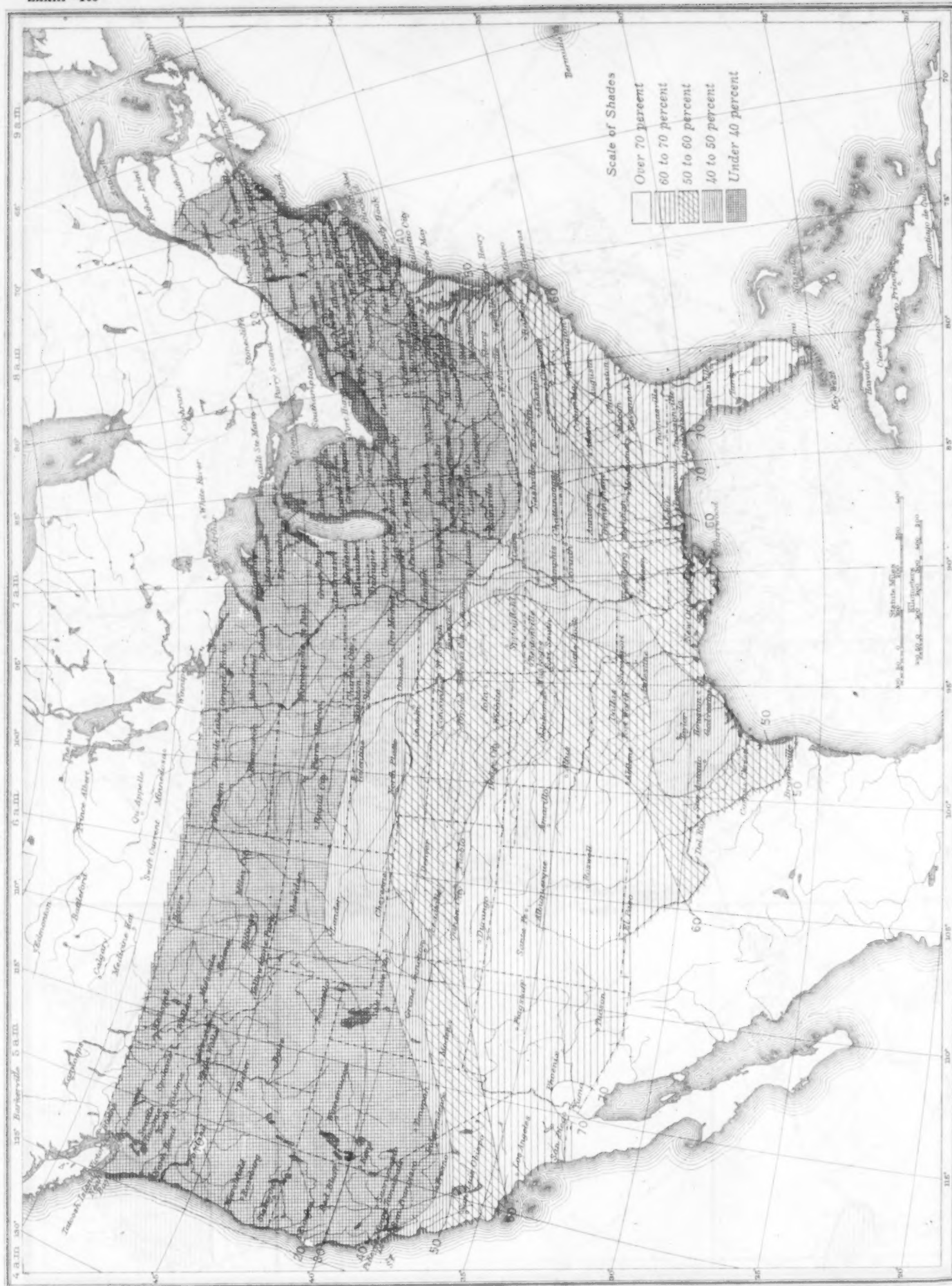
Chart III. Tracks of Centers of Cyclones, November 1945. (Inset) Change in Mean Pressure from Preceding Month

Chart III. Tracks of Centers of Cyclones, November 1945. (Inset) Change in Mean Pressure from Preceding Month
(Plotted by D. R. Harris)



Circle indicates position of cyclone at 7:30 a. m. (75th meridian time), with barometric reading. Dot indicates position of cyclone at 7:30 p. m. (75th meridian time)

Chart IV. Percentage of Clear Sky Between Sunrise and Sunset, November 1945



CL-47 Tot-1 Precipitation Inches November 1945 (Inset) Departure of Precipitation from Normal

Chart V. Total Precipitation, Inches, November 1945. (Inset) Departure of Precipitation from Normal

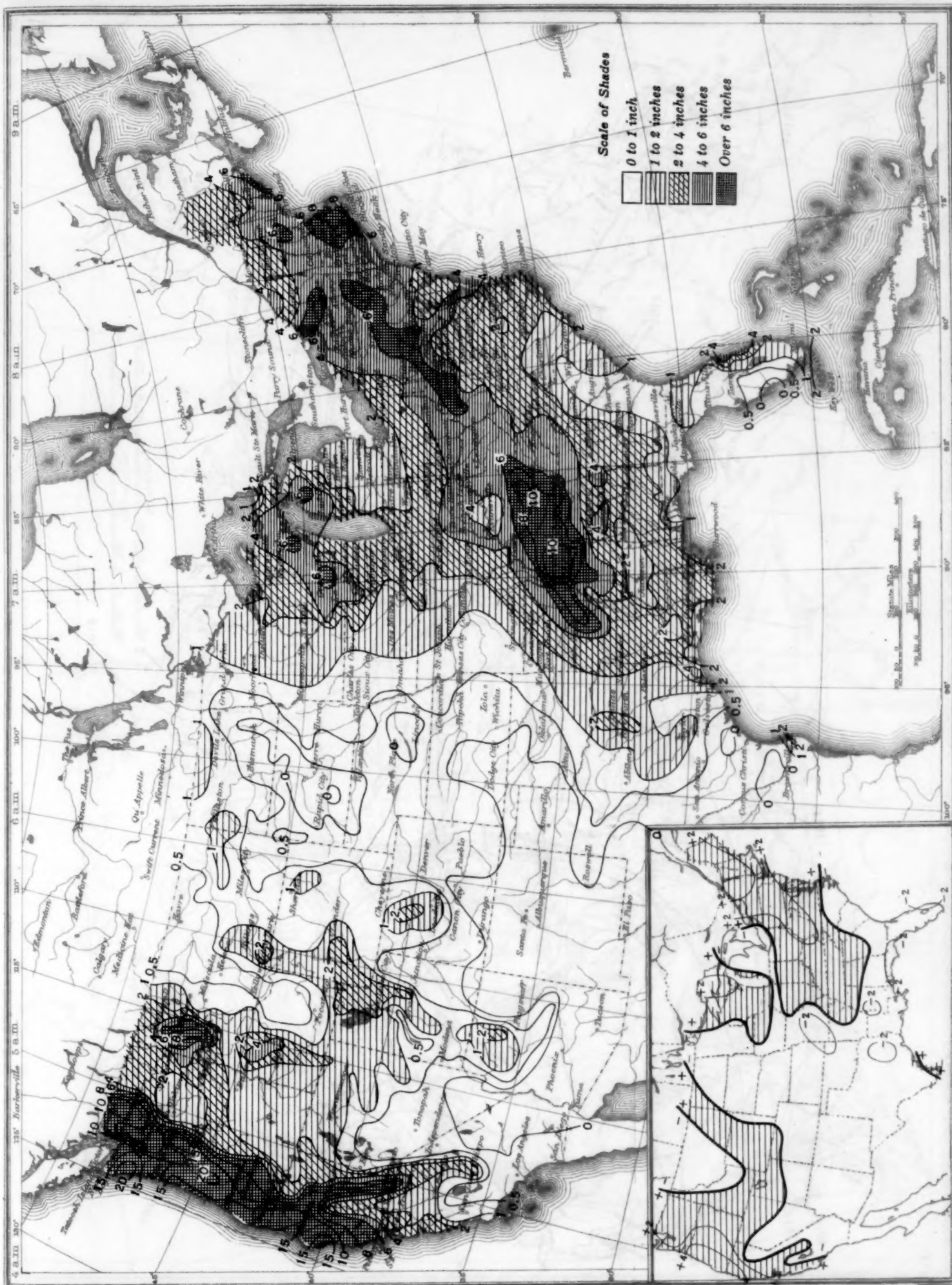
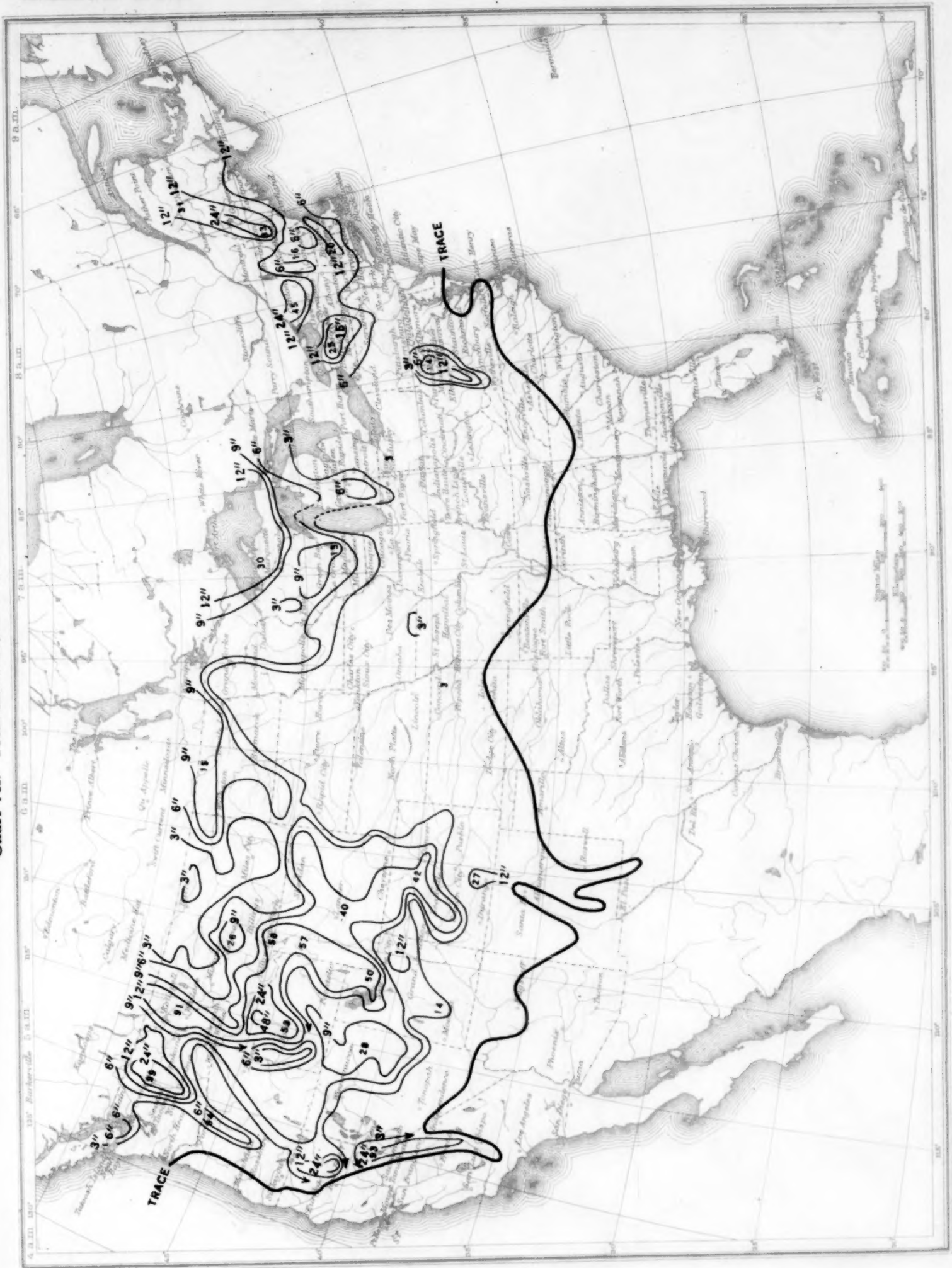


Chart VII. Total Snowfall, Inches, November 1945.



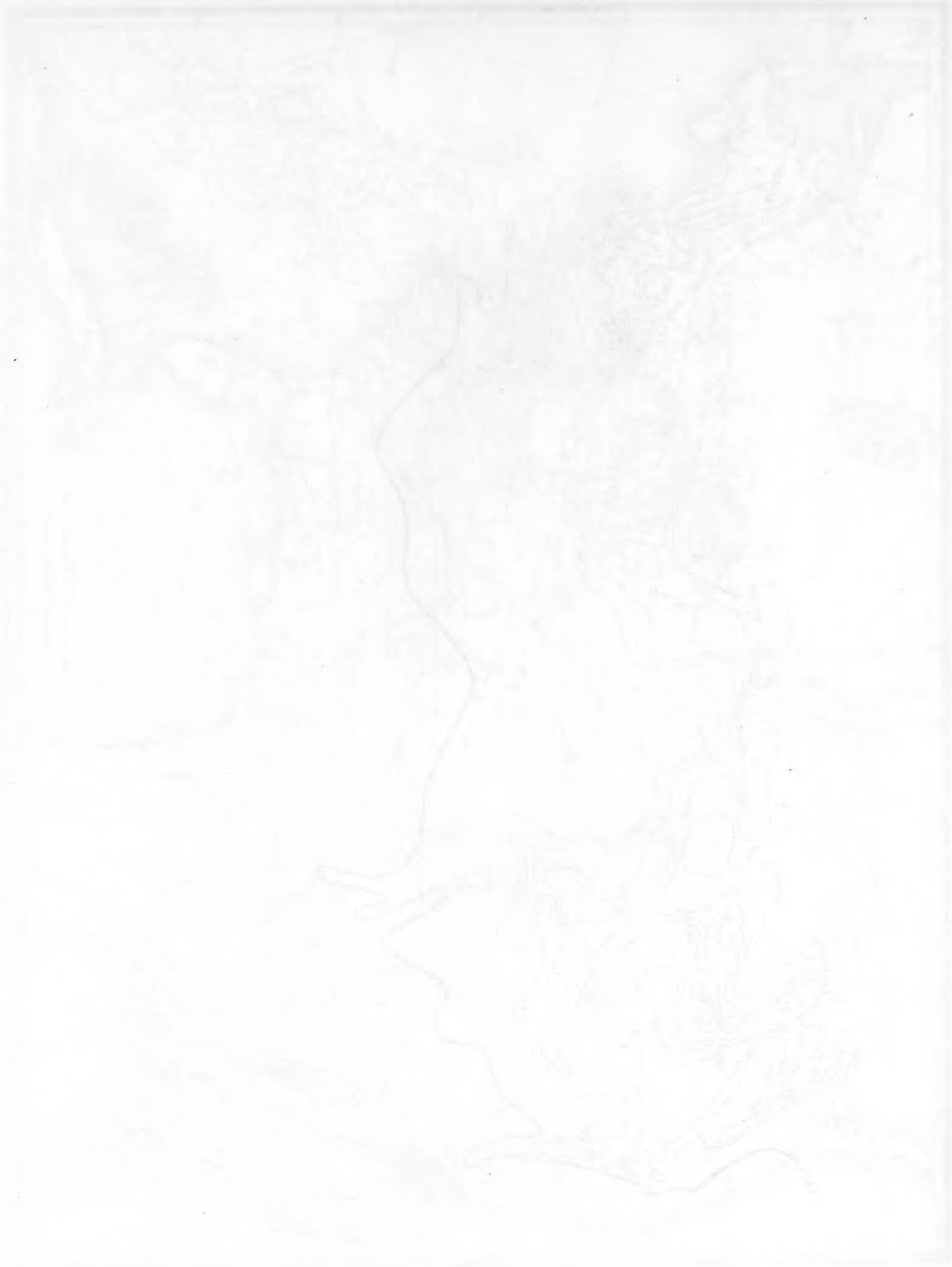


Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) November 1945

Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms (°C.), and Resultant Winds for 1,500 Meters (m. s. l.) November 1945
Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.)

Chart VIII. Isobars (mb) for 1,524 Meters (5,000 ft.), and Isotherms ($^{\circ}\text{C}$), and Resultant Winds for 1,500 Meters (m.s.l.) November 1945
 Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

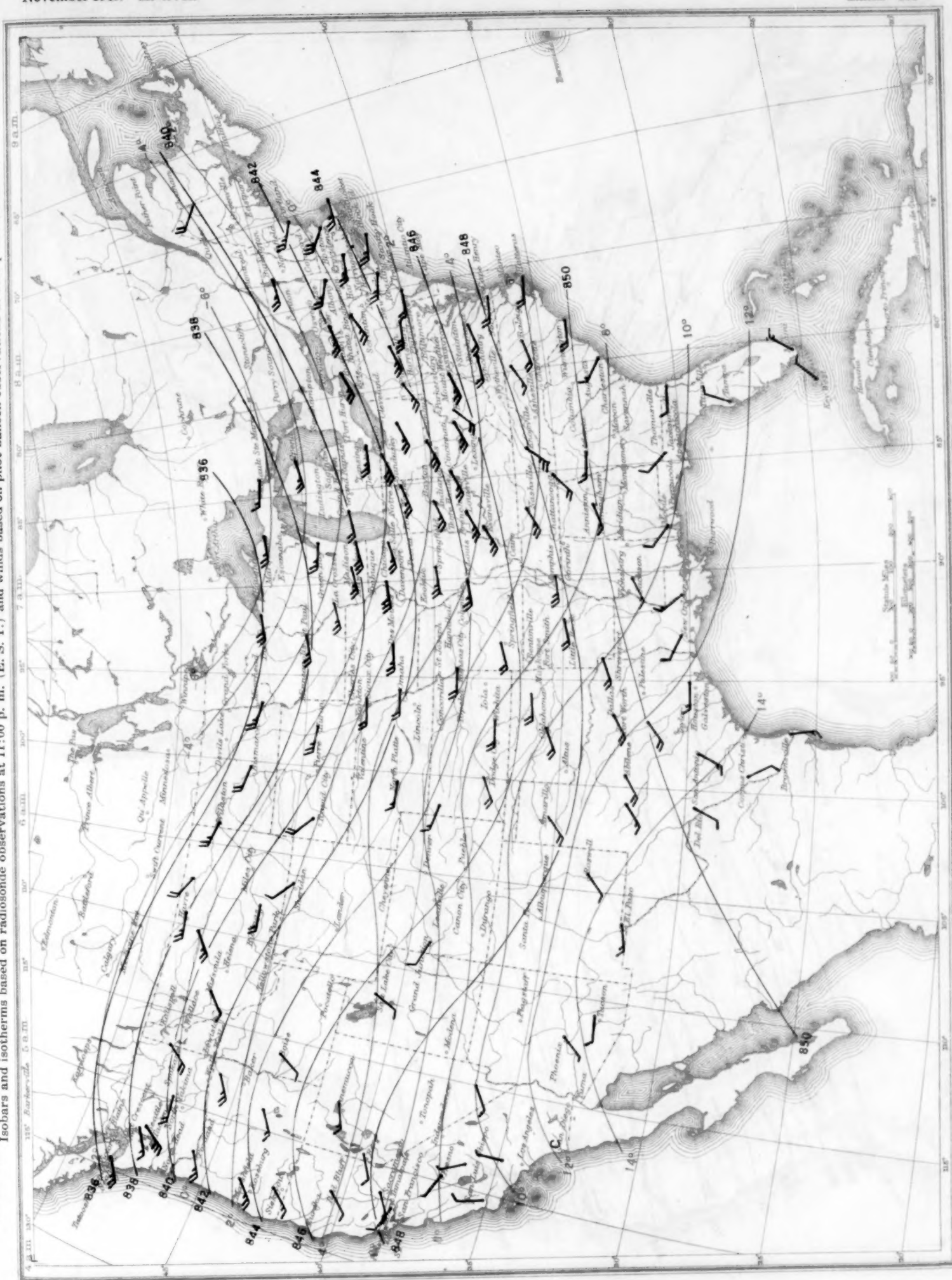


Chart IX. Isobars (mb), Isotherms ($^{\circ}\text{C}$), and Resultant Winds for 3,000 Meters (m. s. l.) November 1945
 Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

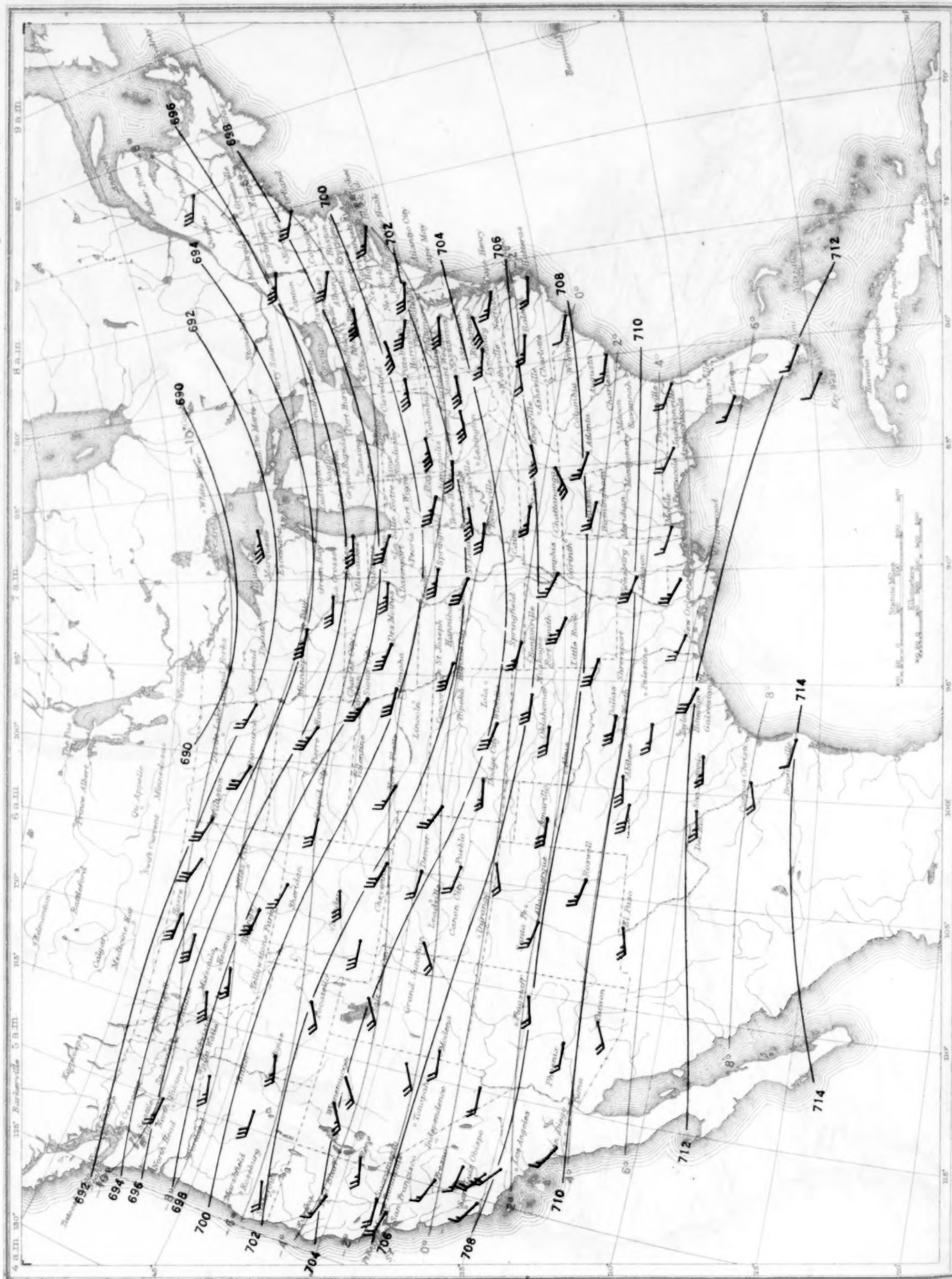


Chart X. Isobars (mb), Isotherms ($^{\circ}\text{C}$), and Resultant Winds for 5,000 Meters (m. s. l.) November 1945

Chart X. Isobars (mb), Isotherms ($^{\circ}\text{C}.$), and Resultant Winds for 5,000 Meters (m. s. l.) November 1945
 Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

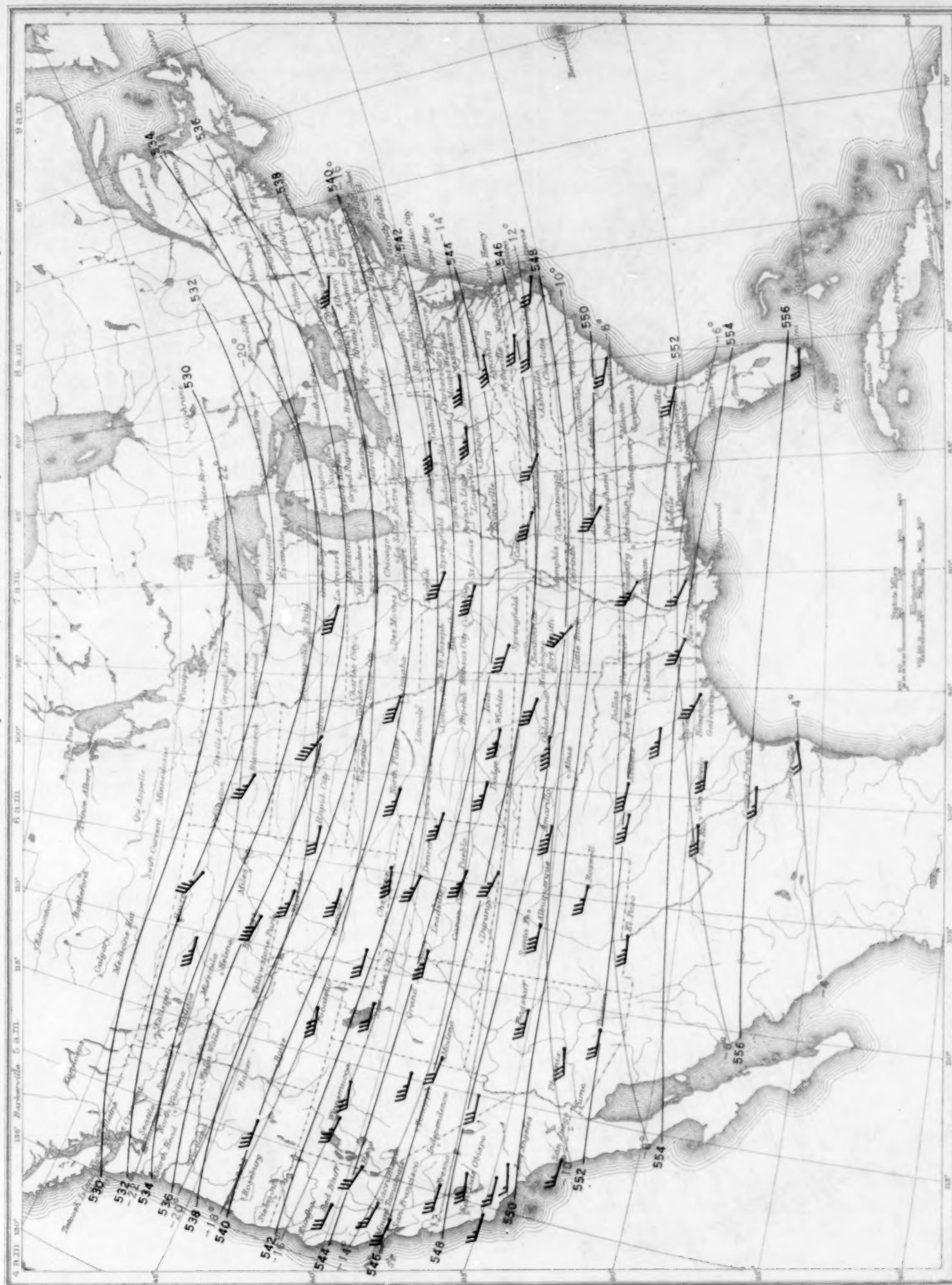


Chart XI. Isobars (mb), Isotherms ($^{\circ}\text{C}$.), and Resultant Winds for 10,000 Meters (m. s. l.) November 1945
 Isobars and isotherms based on radiosonde observations at 11:00 p. m. (E. S. T.) and winds based on pilot balloon observations at 5:00 p. m. (E. S. T.).

